

Acknowledgments

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1 Envisioning Madison Township

1.1 Vision statement

Madison Township seeks to balance the preservation of its semi-rural character with the accommodation of new growth and development to create a desirable community with a positive and unique character and enhance the quality of life for residents. Through this comprehensive plan Madison Township will implement land use policies that protect and enhance its natural resources, promote and preserve viable agriculture and viniculture, support sustainable economic development, mandate high aesthetic standards and high quality appearance of public spaces, and ensure new development is carefully integrated into the semi-rural and agrarian landscape.

1.2 Why a comprehensive plan?

A comprehensive plan is a land use document that provides the framework and policy direction for land use decisions and other actions affecting the physical, economic, and social aspects of the community. It indicates in a general way how local government leaders want the community to develop in the future.

The basic characteristics of a comprehensive plan are that it is general and far-reaching. Another defining characteristic is that the plan is long-range and provides a base from which to make decisions.

The adoption of a comprehensive plan often becomes the driving force behind creation of a more targeted plan. Examples of more targeted plans would include the US 20 Corridor Plan, or a plan for redevelopment of the North Madison area.

The Madison Township Comprehensive Plan is a major planning effort to guide the community toward what it will be like in future as a place to live, work, and invest. It is being developed through an open, participatory process driven by four broad-reaching questions:

- 1. Where are we now?
- 2. Where are we going?
- 3. Where do we want to be?
- 4. How do we get there?

The Comprehensive Plan will identify a vision and broadly address the elements that build a community including transportation, housing, open space and natural resources, sense of place, government services, the impacts of new developments and more.

The Comprehensive Plan serves as the township "to do" list, at least with regards to land use and the built environment for the near future. Through goal setting, it will set priorities about land use, economic development, cultural and natural resources, transportation and other areas.

The Comprehensive Plan will not propose specific lot-by-lot locations for land uses or facilities, or address detailed regulations. A Comprehensive Plan is not a zoning resolution or subdivision regulation. However, such regulations are used as tools for implementing the Comprehensive Plan. The Comprehensive Plan is intended to provide the legal and rational framework for regulations, investments, and government action.

1.3 Comprehensive planning process

Urban planners have used some form of the planning process since the inception of the planning profession. Long ago, Patrick Geddes advocated a three-step procedure: survey, analysis, plan.

Today, most planners use a planning process called the rational model. The rational model usually takes the following form:

- 1. Identify issues and options.
- 2. State goals and objectives; identify priorities.
- 3. Collect and interpret data.
- 4. Prepare plans.
- 5. Draft programs for plan implementation.
- 6. Evaluate potential impacts of plans and implementing programs, and modify the plans accordingly.
- 7. Review and adopt plans.
- 8. Review and adopt implementation programs.
- 9. Administer plan-implementing programs, monitor their impacts, and amend plans in response to feedback.

A very important part of the planning process is public participation; that those who live, work and own businesses and nurseries in the township have a role in charting its future. Meetings were held with residents and community leaders throughout 2005-2008, to solicit thoughts about the state of the built environment in the township, and the direction in which it should be heading.

The planning process is not finished with the completion of the steps described above. Collecting and analyzing information and implementing comprehensive plans is an ongoing process. Policy statements require occasional revision to respond to new conditions; longrange goals need periodic review. The planning process is a continuous program for keeping the plans of a community current and relevant, and the implementation programs fair and effective. It is important to review plans on a regular basis, and keep them up to date. Good planning practice recommends major review and revision of a comprehensive plan every five to seven years.

The Comprehensive Plan is a flexible planning tool that is not carved in stone. While the plan presents goals and policies to be pursued, future events, broad changes in community values, or the availability of financing could cause township leaders and residents to focus on other goals. However, it is good civic stewardship to ensure that revisions conform to the spirit of the plan and sound planning principles, and consider the best interest of the community as a whole.

1.4 Plan organization

Each element contains at least two parts: a narrative description of current conditions (often called an inventory) and possible courses of action for the township; and formal goals and policies. To permit flexibility in implementing the plan, specific implementation steps are usually not included with individual goals and policies.

The formal plan introduction, in the next chapter, describes the history, geography and geology of Madison Township, along with a description of the challenges faced by the township. The **demographics element** describes attributes of the township population, how it

has changed through the years, and how it may change in the future. The **land use element** describes the role of the built environment on the township, how land is being used, and the importance of creating and maintaining a unique sense of place. **The transportation element** describes the transportation system in the township; not just considering motor vehicles, but also bicycles and pedestrians. The **housing element** describes home ownership and tenure trends, and addresses challenges such as affordable housing. The **public facilities element** describes all public land uses – public safety facilities, schools, parks and open space – and discusses future needs. The **utilities element** describes the role that utilities play in shaping the built environment of the township. The **economic development element** describes the business environment of the township, and policies intended to maintain a diverse tax base and reduce the tax burden on residents, while preserving rural character. The **natural resources element** describes the features of the township built, not by man but by nature, and ways to protect those gifts in the face of population growth.

The appendix will include specific survey results, and suggested implementation policies, including zoning resolution and map amendments.

1.5 Relation to adopted regional plans

The Madison Township Comprehensive Plan is considered an amendment to the Lake County Comprehensive Plan. Regional plans from the Northeast Ohio Area Coordinating Agency (NOACA), the regional council of governments (COG) that guides transportation planning in the Cleveland metropolitan area, are also reflected in this plan.

The township comprehensive plan committee met in conjunction with the planning commission for Madison Village, which served as the village comprehensive plan committee. Although the village plan will be a separate document from the township plan, the two will be interwoven, acknowledging the interdependence of the township and village, and recognizing that land use issues in one community may have a significant impact on the other.

2 Introducing Madison Township

2.1 History

Madison Township was organized in 1811. Early surveyors knew the area as Township Number Eleven and it was later named for President James Madison. At 45 square miles, it was the largest township in the new State of Ohio. It has been part of Washington, Trumbull and Geauga Counties prior to becoming part of Lake County in 1840.

Madison Township in Lake County is one of twenty townships in Ohio that share the name in the state; other Madison Townships are located in Clark, Columbiana, Fairfield, Fayette, Franklin, Guernsey, Hancock, Highland, Jackson, Licking, Muskingum, Perry, Pickaway, Richland, Sandusky, Scioto, Vinton and Williams counties. Today, Madison Township is one of five remaining townships in Lake County.

Industry played a very important role in the early growth of the Madison area. In 1830, there were six distilleries, a carding mill, a cloth dressing and woolen mill, a chair factory and four tanneries. Iron ore was found in abundance in the bogs near the beach ridges in 1825. In 1831 Arcola, at the intersection of what is now US 20 and Dock Road, was the site of the largest industrial plant in the state, with two blast furnaces employing 2,000 ironworkers. The ore was nearly depleted by 1850, when charcoal prices rose and the iron industry disappeared.

The oldest community in Lake County is Unionville, which was established in 1798 as a stage coach and mail stop between Cleveland and Buffalo. It's post office was established in 1823. Unionville has many historical buildings including Unionville Tavern and the Western Reserve Land Office.

Unionville is a unique community in two ways. First of all, it is divided by the Lake County/Ashtabula County line, so half the community is in Madison Township and the other half is in Harpersfield Township. The other unique thing about Unionville is that it is not incorporated as a village, so there is formal government; it is administered by the Boards of Township Trustees of Madison and Harpersfield.

At the center of Madison Township was Chapintown, one of the earliest settlements in what was to later become Lake County. When Lake County became a county in 1840, Chapintown had three stores, two churches and eighty houses. Chapintown would later be known as Centreville. In 1867, Centreville was incorporated as Madison Village. Madison Village was on the major route connecting Cleveland and Buffalo. An early stage coach route went directly through the village.

Prior to the Civil War, the area had many Underground Railroad stations, including the Unionville Tavern, and history tells of many escaped slaves who passed through the region. Railroads arrived in Lake County in the mid-19th century, with two lines passing through the township and village.

The Madison School District, which includes the township and village, was organized in 1865. The fire department was organized in 1890.

In the 1890s, agriculture in Madison Township was dominated by field crops such as wheat, oats, corn and potatoes. In the early 1900s, onions became a prominent crop. The first winery opened in 1934.

Nurseries were first established in the area in the 1870s. The Nursery Growers of Lake County was formed in 1927 "for the improvement of trade and education" in the county. With a microclimate that is well-suited for certain horticultural crops, today nurseries define the rural landscape of Madison Township and northeastern Lake County. The Lake County nursery industry employs over 2,700 full and part-time workers and has an estimated annual wholesale figure of over \$90,000,000 in sales. Nurseries and wineries have long ago supplanted farms growing field crops.

North Madison, now the most densely populated area of eastern Lake County, was transformed from farms and nurseries to cottage-filled subdivisions between World War I and World War II. Many residents of Cleveland, Youngstown and Pittsburgh owned cottages in North Madison, where they would spend their summer weekends. When the Depression ate away at disposable income, World War II rationing limited driving, and once-exotic vacation destinations further afield became more accessible, North Madison became less popular as a resort area. After World War II, many of the cottages, not intended for year round residence, were winterized, while some others were demolished. Small houses were built on many lots that had not been occupied.

The Cleveland, Painesville and Eastern interurban railroad provided passenger service through Madison Township and in Madison Village until it was abandoned in 1926. Interstate 90 was planned in the 1930s as part of a transcontinental superhighway system; it finally opened for traffic in 1960.

2.3 Previous plans

1962 MADISON VILLAGE COMPREHENSIVE PLAN

The 1962 comprehensive plan drafted for Madison Village encompassed some parts of Madison Township, with an implied assumption that the village and township could merge in the not-too-distant future. In the decades following World War II, the population of Northeast Ohio was growing rapidly, along with its manufacturing and commercial base. The ambitious 99 page document reflected the optimism of the time. Rather than becoming a bedroom community, the 1962 plan envisioned Madison Village as a mostly self-contained industrial satellite city. The plan anticipated that the rapid population growth in Lake County at the time – 20 new residents a day – would continue unabated, eventually causing increased development pressure in the eastern end of the county. The plan foresaw Madison Village accommodating over 55,000 residents by 1985.

Preservation of semi-rural and small-town character, and the future of the area's farms, nursery industry and vineyards, were not addressed by the plan. Much of the area north of the village center, now occupied by some of Northeast Ohio's largest nurseries, was slated for industrial development. The plan called for protection of elements that contributed to the "lore" of the area, stating "the surrounding land should be developed to complement rather than destroy the character inherent in them." The plan called for highway service business development of the area around the OH 528/I-90 interchange; only now is such development taking place.

The anticipated population growth and industrial expansion never occurred and very little of the plan was implemented by the village or township.

1975 INVENTORY OF EXISTING CONDITIONS

In May 1975, the Lake County Planning Commission released the Inventory of Existing Conditions Report for Madison Township and Madison Village. Although the document was not a formal plan, the text occasionally offered some general recommendations for alleviating deficiencies.

1982 MADISON TOWNSHIP AMENDMENT

In Ohio, township comprehensive and area plans are technically amendments to a broader county plan. The three-page *Madison Township Amendment to the Lake County Comprehensive Plan*, approved in November 1982 included some broad guidelines governing land use and roads, and a future land use map. The land use map reflected the assumption that the Lakeland Freeway would be completed through Madison Township.

1994 MADISON TOWNSHIP COMPREHENSIVE PLAN

The current plan guiding development is the *Madison Area Comprehensive Development Plan*, adopted in 1994. The plan is largely a general inventory of then-current conditions, and presents few long-range goals or policies. The future land use map of the 1994 plan is little changed from that of the 1982 plan.

US 20 CORRIDOR PLAN (DRAFT)

To address issues regarding traffic, aesthetics, and strip commercial development along North Ridge Road, Madison Township officials authorized the completion of a corridor plan for the area adjacent to and near the road. In the words of the plan, its intent is to:

- Improve the safety, traffic flow, and capacity of US 20, in the face of increasing commercial and residential development in the area.
- Improve sewer and water service and make the area more appealing for quality middleend retail and office uses.
- Increase the diversity and quality of commercial and retail uses along the corridor.
- Halt and reverse the pattern of unplanned strip development, and channel retail and commercial uses into well-defined, healthy nodes.
- Improve the appearance of the corridor, including architecture, landscaping, business signage, and other elements of the built environment, so it presents a positive impression of the township, fosters a distinctive sense of place, and becomes an attractive gateway between Lake and Ashtabula counties.
- Preserve the viability of the nursery industry along the corridor.

At the time this plan was written, the second draft of the US 20 Corridor Plan was complete. The plan includes many goals and policies concerning transportation, land use, utilities, and the built and natural environment. The plan also calls for strict site design, architectural, landscaping and sign regulation; limiting of semi-industrial uses; riparian setbacks for Arcola Creek; access management; and a new zoning resolution.

The US 20 Corridor Plan will often be referenced in this comprehensive plan.

2.4 Surveys

In recent years, people have been besieged with surveys of every kind; long marketing research-related phone calls, political and opinion polls, requests to fill out customer satisfaction cards at restaurants and businesses, and more. Although the public may be faced with "survey overload," it is still one of the most effective and efficient ways to gather citizen opinions about civic and planning-related issues.

In the planning process, it is important to know the thoughts and opinions of "stakeholders" – residents and businesspeople that may be affected in some way by the plan. The findings of planning-related surveys help shape the plan, and justify its goals and policies as reflecting the will of the stakeholders. It also offers planners and township leader's insight into problems and issues that may not be readily seen. If survey findings are acknowledged and reflected in goals and policies, the result is a plan that residents are more likely to take ownership.

A written survey that received 228 responses from township residents (and 92 responses from Madison Village residents) was conducted as part of the comprehensive planning process. This section describes the surveys and their findings. (The plan appendix includes more detailed survey results.)

Resident survey: question 1 Do you live in the village or township?												
Response	Total #	Total %	Village #	Village %	Twp#	Twp %						
Madison Village	92	28.8%	92	100.0%	0	0.0%						
Madison Township	228	71.3%	0	0.0%	228	100.0%						

Question 2 asked respondents to choose up to three reasons why they decided to live in the village or township. 63.2% of township residents chose "small town environment" among their responses, compared to 3.9% who chose "suburban environment." 35.1% chose "Like the house that you now own or rent", and 32.5% chose "Close to family, have always lived in the area".

Resident survey: question 2 Choose up to three important reasons why you decided to live in the village or township. (check up to three)

		Total			Village		Township			
Response	#	% surv	% resp	#	% surv	% resp	#	% surv	% resp	
(01) Small town environment (village)	71	22.3%	8.4%	61	66.3%	24.1%	10	4.4%	1.7%	
(02) Rural/semi-rural environment (township)	150	47.0%	17.6%	6	6.5%	2.4%	144	63.2%	24.1%	
(03) Suburban environment	15	4.7%	1.8%	6	6.5%	2.4%	9	3.9%	1.5%	
(04) Convenient location, close to work	53	16.6%	6.2%	18	19.6%	7.1%	35	15.4%	5.9%	
(05) Close to family, have always lived in the area	99	31.0%	11.6%	25	27.2%	9.9%	74	32.5%	12.4%	
(06) Madison School District	52	16.3%	6.1%	16	17.4%	6.3%	<i>36</i>	<i>15.8</i> %	6.0%	
(07) Safety, security, lack of crime	81	25.4%	9.5%	30	32.6%	11.9%	51	22.4%	8.5 %	
(08) Like the house that you now own or rent	120	37.6%	14.1%	40	43.5%	15.8%	80	<i>35</i> .1%	13.4%	
(09) Housing that was affordable	82	25.7%	9.6%	28	30.4%	11.1%	54	<i>23.7%</i>	9.0%	
(10) Close to Lake Erie	54	16.9%	6.4%	6	6.5%	2.4%	48	21.1%	8.0 %	
(11) Climate, weather	4	1.3%	0.5%	0	0.0%	0.0%	4	1.8%	<i>0.7%</i>	
(12) Distance from urban and inner ring suburban problems.	60	18.8%	7.1%	14	15.2%	5.5%	46	20.2%	7.7%	
(13) Something else (type reason)	9	2.8%	1.1%	3	3.3%	1.2%	6	2.6%	1.0%	

Question 3 asked about residents' long-term plans to stay in the village or township. The responses of township residents implied that they were less mobile than Village residents; 65.2% of township respondents stated that they would live in the township permanently, compared to 63.7% of village residents. No township resident planned on staying for only one or two years, compared to 5.5% of village respondents.

Resident survey: question 3 How long do you plan on staying	Resident survey: question 3 How long do you plan on staying in the village or township? (check one)													
Response	Total #	Total %	Village #	Village %	Twp #	Twp %								
(01) 1-2 years	5	1.6%	5	5.5%	0	0.0%								
(02) 3-5 years	4	1.3%	1	1.1%	3	1.3%								
(03) 5-10 years	9	2.9%	2	2.2%	7	<i>3</i> .1%								
(04) Until I/we can afford to buy a larger or nicer house elsewhere.	11	3.5%	1	1.1%	10	4.5%								
(05) Until I/we retire.	28	8.9%	6	6.6%	22	9.8%								
(06) Permanently, unless there's a situation where I'm/we're forced to move.	204	64.8%	58	63.7%	146	65.2%								
(07) Don't know / not sure	54	17.1%	18	19.8%	<i>36</i>	16.1%								

In Question 4, residents were asked to rate the quality of community services and attributes. Township respondents expressed strong satisfaction with public safety and emergency services, and parks and recreational facilities. Scoring at the bottom were the public sewer system, visual quality of commercial areas in the township, trails, recreational opportunity for children and teenagers, and public transportation. The ratings given by township residents were generally lower than that given by village residents.

Resident survey: question 4

Please rate the adequacy or quality of the following community services and attributes, from 1 (poor) to 5 (very good). Rate as many as you want.

		Total			Village		Township			
Response	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode	
(01) Roads	3.31	3	3	3.50	3	3	3.24	3	3	
(02) Parks and recreation facilities	3.53	4	3	3.53	4	3	3.53	4	4	
(03) Hiking, biking and walking trails	2.85	3	3	2.80	3	3	2.88	3	3	
(04) Public sewer system	2.96	3	3	3.37	3	3	2.76	3	3	
(05) Public water system	3.44	3	3	3.60	4	4	3.36	3	3	
(06) Police protection	3.80	4	4	3.99	4	4	3.73	4	4	
(07) Fire protection	4.06	4	4	4.21	4	5	4.00	4	4	
(08) Emergency services (911 and ambulance)	4.08	4	5	4.21	4	5	4.02	4	4	
(09) Refuse collection and recycling	2.93	_	3	3.22	3	3	2.80	3	3	
(10) Public transportation	2.77	3	3	2.74	3	3	2.78	3	3	
(11) Community arts and cultural facilities	3.15	3	3		3	3	3.15	3	3	
(12) Public schools	3.67	4	4	3.73	4	4	3.64	4	4	
(13) Recreational opportunities and diversions for children and teenagers	2.63	3	2	2.86	3	2	2.55	3	3	
(14) Code enforcement	2.92	3	3	3.23	3	3	2.81	3	3	
(15) Diversity and quality of businesses in the village	2.75	3	3	2.65	3	3	2.79	3	3	
(16) Diversity and quality of businesses in the township	3.08	3	3	3.32	3	3	3.00	3	3	
(17) Visual quality of the village center	3.44	4	4	3.54	4	4	3.39	3	3	
(18) Visual quality of commercial areas in the township	2.86	3	3	2.83	3	3	2.87	3	3	
(19) Greenspace, farmland and nursery preservation	3.42	3	3	3.63	4	4	3.34	3	3	
(20) Employment opportunities	2.19	2	3	2.11	2	1	2.22	2	3	

Question 5 asked residents what one thing is most needed to address issues facing the village's built and natural environment. About 32% of township residents chose "slowing growth and development", compared to 29% of village respondents. About 41% of those surveyed answered "more coordination with the township and between local governments", compared to about half of Village residents. 18.9% answered "stronger land use and zoning regulations." 2.3% answered "more public funds", compared to 7.1% of village residents.

Resident survey: question 5
What one thing do you think is most needed to address issues such as traffic, housing, growth, and open space preservation? (check one)

Response	Total #	Total %	Village #	Village %	Twp #	Twp %
(01) Slowing growth and development	76	31.0%	20	28.6%	56	32.0%
(02) More coordination with the township and between local governments	106	43.3%	34	48.6%	72	41.1%
(03) Stronger land use and zoning regulations	44	18.0%	11	15.7%	33	18.9%
(04) More public funds	9	3.7%	5	7.1%	4	2.3%
(05) Other	10	4.1%	0	0.0%	10	5.7%

Question 6 asked residents to choose two environmental and open space assets that they feel are in the greatest need of protection. Wooded areas, Lake Erie, and farmland and nurseries were considered to be among the most important assets.

While no part of Madison Village touches the Lake Erie shoreline, a larger percentage of village respondents (54.3%) stated that Lake Erie was among the resources needing the most protection, compared to township respondents (46.9%). Although Arcola Creek lies entirely in the township, a higher percentage of village respondents (33.7%) ranked it as an important environmental asset, compared to township respondents (22.8%).

A higher percentage of township residents (43.9%) stated that farmland and nurseries was among the resources needing the most protection, compared to village respondents (37%).

Resident survey: question 6 Choose up to three environmental assets you believe need the most protection. (check three)														
		Total			Village		7	Townshi	ip					
Response	#	% surv	% resp	#	% surv	% resp	#	% surv	% resp					
(01) Wooded areas	146	45.8%	17.0%	49	53.3%	19.2%	97	42.5%	16.1%					
(02) Farmland and nurseries	134	42.0%	15.6%	34	37.0%	13.3%	100	43.9%	16.6%					
(03) Scenic views, view corridors	52	16.3%	6.1%	16	17.4%	6.3%	36	15.8%	6.0%					
(04) Quiet, lack of noise	82	25.7%	9.6%	23	25.0%	9.0%	59	25.9%	9.8%					
(05) Air quality	55	17.2%	6.4%	15	16.3%	5.9%	40	17.5%	6.6%					
(06) Arcola Creek and adjacent riparian areas	83	26.0%	9.7%	31	33.7%	12.2%	52	22.8%	8.6%					
(07) Lake Erie	157	49.2%	18.3%	50	54.3%	19.6%	107	46.9%	17.8%					
(08) Dark nighttime sky	29	9.1%	3.4%	6	6.5%	2.4%	23	10.1%	3.8%					
(09) Groundwater quality	112	35.1%	13.1%	28	30.4%	11.0%	84	<i>36.8</i> %	14.0%					
(10) Other	3	0.9%	0.4%	0	0.0%	0.0%	3	1.3%	0.5%					
(11) Don't know / not sure	4	1.3%	0.5%	3	3.3%	1.2%	1	0.4%	0.2%					

Question 7 asked what kind of development was more appealing; houses on large lots with little open space and farmland preserved, or houses on small lots with more open space and farmland preserved. Compared to village respondents, township respondents were less receptive of development where houses are on small lots, but more greenspace is preserved.

Resident survey: question 7 Would you prefer to see (check one)												
Response	Total #	Total %	Village#	Village %	Twp#	Twp %						
(01) Houses on large lots, with little common greenspace preserved, or	136	48.7%	32	38.6%	104	53.1%						
(02) Houses on smaller lots, with more common greenspace preserved	143	51.3%	51	61.4%	92	46.9%						

Question 8 asked what kind of residential development was more appealing; small-lot development that resembles a traditional village, or larger-lot development that resembles a more conventional suburban subdivision. A smaller percentage of township residents (62.7%) than village respondents (72.3%) – but still a majority – favor development that feels similar to a traditional village.

The responses to questions 7 and 8 indicate that township residents may be somewhat receptive to alternative forms of residential development such as new urbanist and traditional neighborhood development, and conservation and cluster development.

Resident survey: question 8 Would you prefer to see (check one)													
Response	Total #	Total %	Village #	Village %	Twp #	Twp %							
(01) Residential development where lots are smaller, but the architecture and built environment feels similar to a traditional village, or	181	65.6%	60	72.3%	121	62.7%							
(02) Residential development, where lots are larger, but the architecture, built environment and overall feel is more like a typical suburb	95	34.4%	23	27.7%	72	37.3%							

Question 9 asked users to judge the importance of various issues that may be addressed in this plan.

For respondents from the township, drainage and floodwater retention, natural environment in general, water availability and open space preservation were rated at the top, followed by traffic congestion, sewer capacity, nursery and agricultural preservation, and nuisances and code enforcement. For respondents from the village, drainage and floodwater retention, water availability and sewer capacity were rated at the top, followed by traffic congestion, commercial architecture and site plan quality, nuisances and code enforcement, and open space conservation and preservation.

"Traffic, vehicle circulation and congestion" was scored as an important concern by both township and village residents. However, traffic count data from the Ohio Department of Transportation and the Northeast Ohio Areawide Coordinating Agency (NOACA) shows that traffic congestion in the area is low.

Resident survey: question 9

The following are issues the comprehensive plan may address. Rate how important you feel these issues are, from 1 (not important) to 5 (most important). Rate as many as you want.

		Total			Village		7	Township		
Response	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode	
(01) Sense of place and unique community identity	3.70	4	4	3.75	4	4	3.68	4	4	
(02) Residential development and growth in general	3.63	4	4	3.76	4	4	3.57	4	4	
(03) Traditional village/town style residential development	3.68	4	4	3.82	4	4	3.62	4	4	
(04) Commercial and retail development in the village core	3.42	3	3	3.60	4	4	3.34	3	3	
(05) Strip commercial development outside of the village core	3.14	3	4	3.39	4	4	3.04	3	4	
(06) Commercial architecture and site planning quality	3.93	4	4	4.04	4	4	3.89	4	4	
(07) Commercial and retail use diversity and quality	3.86	4	4	3.96	4	4	3.82	4	4	
(08) Business sign size, height, placement and design	3.37	3	4	3.59	4	4	3.27	3	4	
(09) Economic development and attracting industry	3.78	4	5	3.94	4	5	3.72	4	5	
(10) Traffic, vehicle circulation and congestion	4.15	4	5	4.27	4	4	4.10	4	5	
(11) Sidewalks, bicycle lanes and paths	3.58	4	5	3.84	4	5	<i>3.47</i>	4	5	
(12) Access management (number and location of driveways and turning lanes)	3.66	4	4	3.74	4	4	3.63	4	4	
(13) Open space conservation and preservation	4.09	4	5	4.03	4	5		4	5	
(14) Nursery and agricultural preservation	3.89	4	5	3.77	4	5		4	5	
(15) Community facilities and amenities	3.71		4	3.82		4		4	4	
(16) Parks and recreation facilities	3.88		4	3.87	4	4		4	4	
(17) Natural environment in general	4.23		5	4.10		5		5	5	
(18) Drainage and floodwater retention	4.43		5	4.62	5	5		5	5	
(19) Arcola Creek	3.87		4	3.93		_		4	4	
(20) Nuisances and code enforcement (21) Noise and vibration	3.95 3.82		4	4.04 3.94	4	4		4	4	
(22) Landscaping and trees on private	3.82	4	4	3.94	4	4	3.//	4	4	
property	3.32	3	4	3.29	3	3	3.34	3	4	
(23) Landscaping and trees along roads	3.62	4	4	3.54	4	3	3.65	4	4	
(24) Overhead utility lines	3.48	3	3	3.48	3	3	3.48	3	3	
(25) Sewer capacity	4.15	4	5	4.39	5	5	4.05	4	5	
(26) Water availability	4.34	5	5	4.56	5	5	4.26	5	5	

Question 10 offered statements regarding the built environment and other qualities of the village, and asked respondents to rate how strongly they agreed or disagreed with them.

Regarding **small town and semi-rural character**, respondents as a whole strongly agreed with the statements "The semi-rural character of the township should be preserved" (± 1.25 , median ± 2 , mode ± 2) and "Existing farmland and nurseries should be preserved" (± 1.07 , median ± 1 , mode ± 2). There was mild agreement with the statement "Farmland and open space should be visible from the roads" (± 0.63 , median ± 1 , mode ± 0).

Respondents mildly agreed with the statement "Residential building lots should be large" (+0.48, median +1, mode -1). Respondents were not totally unreceptive to small lots; there was some agreement with the statement "Smaller building lots are acceptable if a residential

development is very well-designed, and offers a large amount of open space" (+0.16, median +0, mode +1).

Regarding **land use**, respondents as a whole agreed with the statement "Semi-industrial uses should be limited to industrial zones (± 1.05 , median ± 1 , mode ± 2). Residents agreed with the statement "The village center should have more shops and restaurants" (± 0.64 , median ± 1 , mode ± 0) and "The North Madison area should have more shops and restaurants" (± 0.75 , median ± 1 , mode ± 2).

Regarding **growth and development**, respondents as a whole agreed with the statements "Urban sprawl in general is a concern" (+0.78, median +1, mode +2), "New development should be close to areas that are already developed" (+1.00, median +1, mode +2), and "Residential growth in the township should be limited" (+0.38, median +1, mode +2). There was mild agreement with the statement "Vacant and/or underused land close to the center of Madison Village should be developed" (+0.24, median +0, mode +1)

Regarding **aesthetics**, respondents as a whole agreed with the statements "High-quality architecture and design, short signs, and plentiful landscaping should be required for commercial uses in the village" (+0.86, median +1, mode +2), "Overhead utilities should be placed underground" (+0.66, median +1, mode 0) and "Businesses at the I-90 interchange should have short, tasteful signs" (+0.51, median +1, mode +1).

More so than village residents, township residents agreed with the statement "The quality of residential development leaves a lot to be desired (+0.72, median +1, mode +2).

Compared to village respondents, township respondents were far more ambivalent about the statement "Madison Village should be visually distinctive from Madison Township" (+0.07, median +0, mode +0),

There was slight disagreement with the statement "Prefab metal buildings should not be allowed in commercial and retail areas" (-0.14, median 0, mode 0) and "Public art, like sculptures and fountains, would enliven Madison" (+0.05, median 0, mode 0).

Regarding **transportation**, respondents as a whole agreed with the statement "Roads should include bicycle lanes if possible" (+0.67, median +1, mode +1). Respondents were neutral to the statements "Roundabouts/circles should be used for traffic calming in some areas." (+0.04, median 0, mode 0).

Regarding **quality of life issues**, respondents as a whole agreed with the statement "Madison needs more diversions for young children and teenagers" (+1.00, median +1, mode +2). More so than village residents, respondents disagreed with the statement "If gasoline prices get too high, I may leave Madison to move closer to work" (-0.68, median -1, mode -2).

Resident survey: question 10
Rate how strongly you agree or disagree with these statements, from -2 (strongly disagree) to 2 (strongly agree).

uisagiee) to 2 (strongty agree).	Total			Village			Township		
Response	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
(01) Urban sprawl in general is a concern.	0.76		2	0.73	1	2	0.78	1	2
(02) Residential growth in the village should be limited.	0.36		1	0.45	1	2		1	1
(03) Residential growth in the township should be limited.	0.27	1	2	-0.01	0	1	0.38	1	2
(04) The village center should have more shops and restaurants.	0.68	1	0	0.76	1	2	0.64	1	0
(05) The North Madison area should have more shops and restaurants.	0.80	1	2	0.92	1	2	0.75	1	2
(06) Existing farmland and nurseries should be preserved.	1.07	1	2	1.08	2	2	1.07	1	2
(07) Farmland and open space should be visible from the roads.	0.60	1	2	0.54	1	1	0.63	1	0
(08) New development should be close to areas that are already developed.	0.91	1	2	0.70	1	2	1.00	1	2
(09) The quality of residential development leaves a lot to be desired.	0.59	1	0	0.28	0	0	0.72	1	2
(10) High-quality architecture and design, short signs, and plentiful landscaping should be required for commercial uses in the village.	0.95	1	2	1.16	1	2	0.86	1	2
(11) Semi-industrial uses (machine shops, body shops, heavy equipment rental, etc) should be restricted to industrial zones.	1.16	2	2	1.42	2	2	1.05	1	2
(12) Madison Village should be visually distinctive from Madison Township.	0.23	0	0	0.64	1	2	0.07	0	0
(13) Madison Township should be visually distinctive from surrounding townships.	0.41	0	0	0.45	1	0	0.39	0	0
(14) Public art, like sculptures and fountains, would enliven Madison.	-0.03	0	0	0.02	0	0	-0.05	0	0
(15) Businesses at the I-90 interchange should have short, tasteful signs.	0.51	1	1	0.51	1	1	0.51	1	1
(16) Vacant and/or underused land close to the center of Madison Village should be developed.	0.33	0.5	2	0.55	1	2	0.24	0	1
(17) Smaller building lots are acceptable if a residential development offers a large amount of open space.	0.16	0	1	0.14	1	1	0.16	0	1
(18) If gasoline prices get too high, I may leave Madison to move closer to work.	-0.62	-1	-2	-0.46	-1	-2	-0.68	-1	-2
(19) Residential building lots should be large.	0.46	1	2	0.38	0	-1	0.48	1	1
(20) Madison needs more diversions for young children and teenagers.	1.01	1	2	1.03	1	2	1.00	1	2
(21) Overhead utility lines should be buried.	0.67	1	2	0.71	1	2	0.66	1	0
(22) Roads should include bicycle lanes if possible.	0.73			0.88		2	0.67	1	1
(23) Roundabouts/circles should be used for traffic calming in some areas.	0.05	0	0	0.07	0	0	0.04	0	0
(24) Prefab metal buildings should not be allowed in commercial areas.	-0.08	0	0	0.09	0	-1	-0.14	0	0
(25) The small town character of the village should be preserved.	1.33	2	2	1.35	2	2	1.32	2	2
(26) The semi-rural character of the township should be preserved.	1.17	2	2	0.96	1	2	1.25	2	2

Question 11 asked residents to rate the quality of life in the township or village. About 47% of township respondents rated the quality of life as "excellent" or "very good", compared to 58% of village residents. 45.2% of township respondents rated it only "good", 6.8% rated it "fair", and 1.4% "poor".

Resident survey: question 11 Overall, how would you rate the q	Resident survey: question 11 Overall, how would you rate the quality of life in Madison?												
Response	Total # Total % Village # Village % Total %												
(01) Excellent	20	6.4%	8	8.9%	12	5.4%							
(02) Very good	135	43.4%	44	48.9%	91	41.2%							
(03) Good	128	41.2%	28	31.1%	100	45.2%							
(04) Fair	25	8.0%	10	11.1%	15	6.8%							
(05) Poor	3	1.0%	0	0.0%	3	1.4%							
(06) Don't know / not sure	0	0.0%	0	0.0%	0	0.0%							

2.5 Future challenges

URBAN SPRAWL AND PRESERVATION OF REMAINING SEMI-RURAL CHARACTER

In Madison Township, much of what can be called "semi-rural character" is gone. Frontage development (strip residential) along the township's long roads blocks vistas of nurseries, fields, woods and open space. Narrow but deep building lots remove some of the region's most valuable agricultural land from production.

A disconnect is found throughout the planning process in Northeast Ohio. Residents value a semi-rural environment, and the presence of farmland and open space. Preservation of semi-rural character was considered one of the most important priorities of future village planning efforts. However, residents generally prefer the type of development that has the most potential to damage the bucolic feel of the township, and consume its farmland, woodlots and open space – large-lot single family development and frontage/strip residential development – to alternatives that will have less impact.

CREATING A SENSE OF PLACE

Sense of place includes the characteristics of the built environment that make a place special or unique, and foster a sense of authentic human attachment and belonging. Places that lack a sense of place are sometimes referred to as placeless. Placeless landscapes are those that have no special relationship to the places in which they are located – they could be anywhere.

Outside of established areas like North Madison and Unionville, there is little that physically distinguishes Madison Township from surrounding communities. Residential development is typical for a northeastern Ohio exurban community, with increasing frontage development lining its long roads. The township zoning resolution has no architectural design regulations, and has basic standards for signs and landscaping. Recent revisions to the Ohio Revised Code provide more authority to Townships to addresses these areas.

CHANGING DEMOGRAPHICS

In Lake County and throughout the United States, household types are becoming more diverse. In 1970, about 44% of all households in the US had children, and only 17% of them were single-person households. The 1960s and 1970s saw the suburbanizing of the United States and the spread of suburban-style planning and zoning, and was the period when child raising dominated household concerns. It was expected that communities catering to households with children, and fashioned appropriate land uses.

In 2006, only about 35% of all households in the US have children, while another 26% are single-person households. By 2040, the US Census Bureau predicts that about 27% of households will have children, and single-person households will remain at about 26%.

Because of changing demographics and shifting housing preferences, the current supply of single-family detached houses on large lots may already exceed the demand projected for the next decade, according to a study by Arthur Nelson in the Autumn 2006 issue of the *Journal of the American Planning Association*. On a national scale the demand for attached, small lot, cluster, and other high-density options is likely to outpace the demand for detached houses on large lots. However, in Madison Township and Lake County as a whole, the bulk of new housing continues to be larger detached houses on large lots, catering to a shrinking market of traditional families. The national trend has yet to become evident in Lake County, including Madison Township.

The percentage of Lake County residents older than 65 has been increasing since the 1970s. Older residents may want to remain in the city, town or village where they lived for so many years, but cannot maintain a larger house on a larger lot. With few options available for them, except a small number of patio home communities in the township and village, many senior citizens are forced to find suitable housing elsewhere.

RAILROAD LINES

The township and village are bisected by the very busy Norfolk Southern and CSX railroad lines. There are no grade-separated crossings in the village. Lake Street, the busiest north-south street in the village and township, crosses the railroad lines at grade near the village center. Throughout the township and village, many obstacles prevent the construction of a grade-separated railroad crossing, such as inadequate space for a bridge with a gentle slope, and the siting of businesses and historic buildings that would make their demolition necessary.

EMPLOYMENT AND TAX BASE

The 1962 comprehensive plan envisioned Madison as an industrial satellite city. Today, the industrial and professional employment base of the township and village is quite small, and many residents commute to Painesville, Mentor or Cleveland for work. Most development consists of single family houses. Numerous Cost of community service studies have shown that the cost of providing services such as public safety and education to residential development is far greater than their contribution to the tax base. This is verified in a 2008 edition. Although much of this is offset by agricultural uses, nurseries and vineyards are increasingly subject to conversion to residential uses.

Communities with an unbalanced tax base are often quick to welcome any commercial or industrial development, regardless of its appropriateness or any negative impacts it may have. Uses that gravitate towards highway exits are often visually intrusive; such development near the Interstate 90 exit could harm the small town character of Madison Village.

2.6 Assets and opportunities

I-90 EXIT

The I-90 exit at River Street (OH 528) makes Madison Village and the southern end of Madison Township far more accessible than other locations in eastern Lake County. It also provides an ideal location for industries and services that depend on close proximity to the Interstate

highway system. Water Tower Drive in Madison Village was developed to provide sites for businesses that want to take advantage of the nearby I-90 exit.

NURSERY INDUSTRY

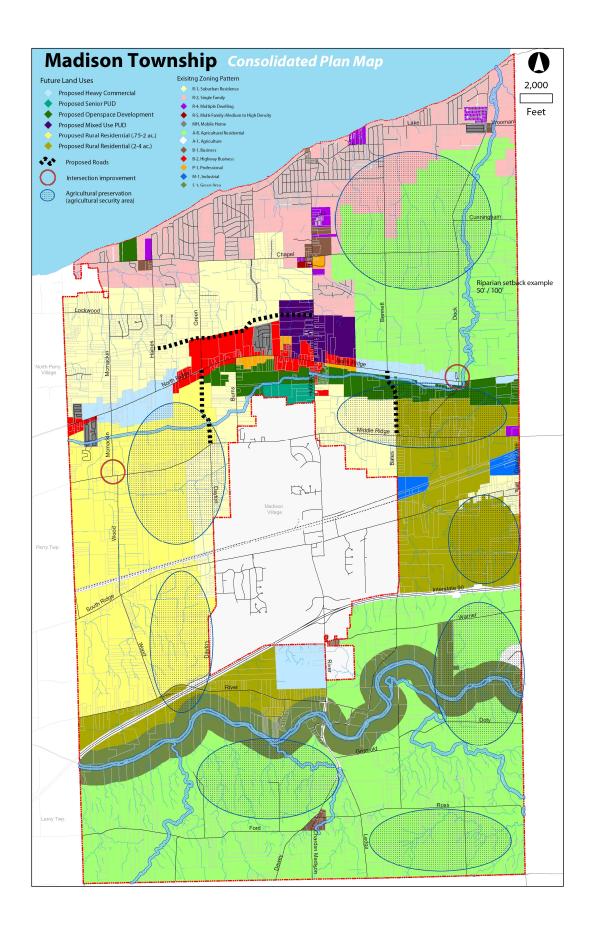
While Madison Township and Madison Village do not have a large industrial base, the area is the center for the nursery industry in northeast Ohio. The presence of large nurseries, which provide jobs and a large amount of tax revenue relative to the services they require, also provides a greenbelt around the village center, and creates a unique visual environment that contributes to sense of place. The nurseries also create opportunities for agritourism.

LAKE ERIE

Public access to Lake Erie is limited in much of Madison Township. However, increased lakefront development can benefit the township, by creating a destination for visitors and area residents, and the village, by funneling additional traffic through the village center. Guidelines and plans established in the *Lake County Coastal Development Plan* will help to achieve this goal. There is a large amount of underdeveloped and undeveloped land in North Madison within walking distance of the lake, presenting an opportunity to retrofit the area and create a unique destination and traditional neighborhood. The presence of Lake Erie is responsible for a unique microclimate that makes Madison Village an ideal location for nurseries and vineyards.

NORTH RIDGE ROAD/US 20 CORRIDOR

The US 20 corridor is the most highly traveled (with the exception of I-90) and built out corridor in the Township. Future installation of sewer lines will make this road even more attractive to commercial, retail and limited industrial businesses. Long term growth should be guided by exterior design guidelines, improved landscaping and stormwater management techniques and access management principles.



3 Demographics

3.1 Introduction

Demographic analysis is an important part of a community comprehensive plan. Identification of demographic and socioeconomic characteristics in Madison Township, surrounding communities, Lake County, and the Cleveland metropolitan area are vital, both for understanding the community and for providing information used in making policy decisions.

This chapter provides a demographic profile of Madison Township, examining information such as population characteristics, educational attainment, school enrollment, income statistics, and employment characteristics. (Information regarding housing can be found in the Housing element.) For comparison, data is also presented for several adjacent communities – Madison Village, Perry Township, Geneva Township (Ashtabula County), Harpersfield Township (Ashtabula County), and Thompson Township (Geauga County) – as well as Lake County and the Cleveland-Akron-Lorain metropolitan area.

Demographic analysis provides basic information necessary to develop a well-thought out comprehensive plan. Demographic information is used in a number of ways:

Quantify: Quantifying the various characteristics of township residents is needed to understand the impacts of a population, or subgroup, on matters such as the level of services required, size of markets that can be supported, and impact on transportation and infrastructure.

Trends: Analyzing numbers over time can identify trends now affecting or which may affect the community in the future.

Identifying issues and needs: Numbers or trends may identify conditions or issues the village may need to address through policy or programs.

Projections: Demographic analysis is the starting point for developing projections. Understanding the size and characteristics of the future population to be served can help a community plan policy and programs in a timely fashion.

The latest data available for most demographic characteristics is from the 2000 Census of Population and

Table 3.1 Census basics 2000 Madison Township outside of Madison Village											
Population	Dwelling units	Area (mi²)	Area (acres)	Population density (mi²)	Dwelling units/acre						
15,494	6,213	38.4 mi²	24,634.95 ac	403.5	0.25 du/ac						
(US Census E	(US Census Bureau)										

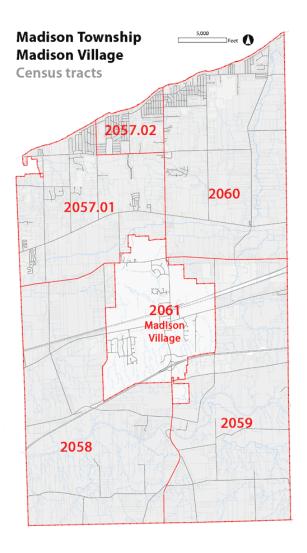
Housing by the U.S. Census Bureau. More recently colleted data have been included to supplement Census Bureau data wherever possible.

Madison Township (excluding Madison Village) includes all blocks in the following Census tracts:

- 2057.01: West: north of Middle Ridge Road, west of Hubbard Road, south of Chapel Road.
- 2057.02: North: east of Green Road, west of Hubbard Road, north of Chapel Road. Includes the North Madison area west of Hubbard Road. This is the most urbanized tract in the township.
- 2058: Southwest: south of Middle Ridge Road, west of Madison Village and Madison Road.
- 2059: Southeast: south of Middle Ridge Road, east of Madison Village and Madison Road.
- 2060: Northeast: north of Middle Ridge Road, east of Hubbard Road. Includes the North Madison area east of Hubbard Road and areas to the south.

Mobile home park blocks include:

- 2057.01 2005-2017 (Stoneyridge)
- 2057.01 3023-3024 (Sands)
- 2057.01 4000-4005 (Sahara)
- 2060 1014-1015 (Shelton Court)



This element examines these blocks to explore how the presence of the mobile home parks affects some traits of the township. (Some data are not available on the block level.)

The blocks include only a portion of the mobile homes in the township, but almost every housing unit in the blocks is a mobile home. In the 2000 Census, 951 mobile homes were counted inside Madison Township, consisting of 15.3% of all housing in the township - the highest percentage of any community in the county. 715 mobile homes are located in Tract 2057.01 (west); comprising 36.3% of all housing units in the tract, and 75% of all mobile homes in the township.

Table 3.2 Tract population 2000 Madison Township, Madison Village									
Township total population	Tract 2057.01 (West)	Tract 2057.02 (North)	Tract 2058 (Southwest)	Tract 2059 (Southeast)	Tract 2060 (Northeast)	Mobile home park blocks	Tract 2061 (Madison Village)		
15,494 *	4,250	3,007	1,267	1,113	5,580	1,166	2,921		
* Datawasin ad	h		for Madican Vi	Ilaaa fuana klaa	£ \	راء من المناه مسا			

* Determined by subtracting population for Madison Village from that of Madison Township (including Madison Village), as tallied by the 2000 Census. (US Census Bureau)

The following highlight some of the more important points of the analysis.

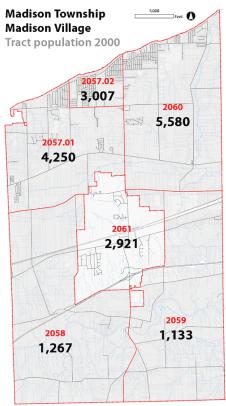
- 1. Many believe that the population of Madison Township is growing rapidly. In reality, the population has been increasing at only a very slow rate since 1980. Between 1980 to 2000, the township population increased by only 116 residents, or 0.8%. The lull allows the opportunity to plan for sustainable, high-quality development, before the growth rate accelerates again.
- 2. A higher percentage of township residents work in manufacturing, transportation, construction and trade-related occupations. The general demographics of Madison Township are more similar to exurban communities in western Ashtabula and eastern Geauga counties, than to suburban communities closer to Cleveland.
- 3. Madison Township has very few minority residents. There are few residents of Hispanic descent, despite the presence of the nursery industry, which employs many Mexican and Central American immigrants and migrants. Hispanic nursery workers usually commute from Painesville and Geneva.



The township population grew at a rate of 0.3% between 1990 and 2000, from 15,447 to 15,494; a lower rate than Lake County during the same decade (5.6%). (Table 3.3)

The estimated population of the township at the end of 2005 is 16,429, based on the number of housing units (6,797 - 6% vacancy = 6,319) and current estimated median household size (2.6). The estimated 2005 population from the Ohio Department of Development is 16,650.

The overall rate of growth in Madison Township was higher than Lake County as a whole only in the 1960s and 1970s. Possible reasons for slow population growth in the 1980s and 1990s



include shrinking household sizes, the economic recession of the early 1980s and early 1990s, and loss of manufacturing-related jobs in the region.

From 1950 to 2000, the population of Madison Township rose by 298%, compared to 64% in Geneva Township (including the City of Geneva and Geneva-on-the-Lake), 134% in Harpersfield Township, and 353% in Perry Township. (Table 3.4)

Table 3.3 Population change 1910 - 2000 Madison Township, Madison Village, Lake County Madison Madison ∆% from Δ% from Δ % from Lake County Year **Township** previous Village previous previous population population * decade population decade decade 1910 2,013 n/a 863 n/a 22,927 n/a +25.0% 1920 1,992 -1.04% 893 +3.5% 28,667 2,340 1930 +17.5% 927 +3.8% 41,674 +45.4% 2,725 +20.0% 1940 +16.5% 979 +5.6% 50,020 1950 3,891 +42.8% 1,127 +15.1% 75,979 +51.9% 8,494 +118.3% 1,347 148,700 +95.7% 1960 +19.5% 12,455 +46.6% 197,200 1970 1,678 +24.6% +32.6% 1980 15,378 +23.5% 2,291 +36.5% 212,801 +7.9% +1.3% 1990 15,447 +0.4% 2,477 +8.1% 215,499 2000 15,494 +0.3% 2,921 +17.9% 227,511 +5.6% 18,000 16,000 Madison Township population * 14,000 12,000 Madison Village population 10,000 8,000 6,000 4,000 2,000 0

* - excluding Madison Village (US Census Bureau)

1910

Table 3.4
Population 1930-2000
Madison Township; comparison to other communities

1920

1930

1940

Year	Madison Township	Madison Village	Perry Township	Geneva Township	Harpersfield Township	Thompson Township	Lake County	Cleveland PMSA
1930	2,340	927	1,154	5,436	1,084	869	41,674	1,465,787
1940	2,725	979	1,380	6,031	950	920	50,020	1,500,798
1950	3,891	1,127	1,819	7,268	1,111	1,060	75,979	1,759,431
1960	8,494	1,347	3,291	9,466	1,414	1,369	148,700	2,220,050
1970	12,455	1,678	4,634	11,099	1,584	1,834	197,200	2,419,274
1980	15,378	2,291	5,126	12,017	2,331	2,083	212,801	2,277,949
1990	15,447	2,477	6,780	11,912	2,498	2,219	215,499	2,202,069
2000	15,494	2,921	8,240	11,954	2,603	2,383	227,511	2,250,871
* VII ~	-4:4! : 4	his wlaw fau C	T	الجملمين المستنستا	C:+ F C		41	les Villages

1950

1960

1970

1980

1990

2000

* - All data cited in this plan for Geneva Township include the City of Geneva and Geneva-on-the-Lake Village. (US Census Bureau)

According to the 2000 Census, 6,045 township residents older than five years (44.1%) lived in a different house in 1995. Of those who have moved to a new residence in the township between 1995 and 2000, 4,158 from another location in Lake County, 1,350 from a different county in Ohio, 502 from out-of-state, and 35 from outside the United States.

3.3 Households and families

The average household size has decreased from 1960 to the present; in the United States from 3.33 persons per household to 2.62, and in Lake County from 3.63 to 2.50.

The decrease in family size can be attributed to many trends; families having fewer or no children, increased lifespan, increased divorce rates, and singles marrying at a later age.

Madison Township has a slightly larger percentage of family households (74.2% of all households) than Lake County (69.7%) and the Cleveland PMSA (65.9%) as a whole. Excepting Geneva Township, the percentage of family households is similar to surrounding townships. (Table 3.5)

Table 3.5 Family and non-family households 2000 Madison Township; comparison to other communities											
Household type	Madison Township		. ,		Harpersfield Township		Lake County	Cleveland PMSA			
Family households	74.2%	72.4%	80.5%	65.2%	76.3%	76.4%	69.7%	65.9%			
Nonfamily households	<i>25.8</i> %	27.6%	19.5%	34.8%	23.7%	23.6%	30.3%	34.1%			
(US Census Bureau)											

Tract 2058 (southwest) has the highest percentage of family households in the township (85%). Only tract 2057.01 (west) has a lower percentage of family households (70%) than the county as a whole (69.7%). The percentage of family households is much lower in mobile home blocks (61%) than the township as a whole. (Table 3.6)

Table 3.6 Family and non-family households 2000 Madison Township census tracts											
Household type	Madison Twp.	Tract 2057.0 1 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Mobile home parks	Madison Village	Lake County	Cleveland PMSA	
Family households	74.2%	70.0%	78.4%	85.0%	80.7%	73.1%	61.0%	72.4%	69.7%	65.9%	
Nonfamily households	25.8%	30.0%	21.6%	15.0%	19.3%	26.9%	39.0%	27.6%	30.3%	34.1%	
(US Census Bureau)										

The average household size in Madison Township (2.65 persons) is higher than Lake County (2.50) and the Cleveland PMSA (2.47). (Table 3.5) The average family size in the village (3.08 persons) is similar to Lake County (3.03) and the Cleveland PMSA (3.08). (Table 3.7)

Table 3.7 Household and family size 2000 Madison Township; comparison to other communities												
Median size (persons)	Madison Township	Madison Village	Perry Township			Thompson Township	Lake County	Cleveland PMSA				
Household size	2.65	2.61	2.88	2.45	2.68	2.75	2.50	2.47				
Family size	3.08	3.11	3.23	3.00	3.06	3.15	3.03	3.08				
(US Census Bureau)												

Median household and family sizes are lowest in tract 2057.01 (2.48, 2.97) and mobile home blocks (2.18, 2.71), most of which are in the tract. (Table 3.8)

Table 3.8 Household and family size 2000 Madison Township census tracts										
Median size (persons)	Madison Twp	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Mobile home parks	Madison Village	Lake County	Cleveland PMSA
Household size	2.65	2.48	2.82	2.83	2.72	2.69	2.18	2.61	2.50	2.47
Family size	3.08	2.97	3.19	3.07	3.00	3.11	2.71	3.11	3.03	3.08
(US Census Bur	reau)									

20.6% of Madison Township households consists of those living alone, compared to 24% in Madison Village and 25.6% of Lake County households. (Table 3.9)

Table 3.9 Household type 2000 Madison Township				
Household type	Households	% of households	Mobile home park households	% of mobile home park households
Total households	5,713	n/a	534	n/a
1-person household:	1,176	20.6%	177	33.1%
Male householder	506	8.9%	76	14.2%
Female householder	670	11.7%	101	18.9%
2 or more person household:	4,537	79.4%	357	66.9%
Family households:	4,288	75.1%	326	61.0%
Married-couple family:	3,473	60.8%	205	38.4%
With own children -18 years	1,613	28.2%	71	13.3%
No own children -18 years	1,860	32.6%	134	25.1%
Other family:	815	14.3%	121	22.7%
Male householder, no wife	260	4.6%	33	6.2%
With own children -18 years	167	2.9%	17	3.2%
No own children -18 years	93	1.6%	16	3.0%
Female householder, no husband	555	9.7%	88	16.5%
With own children -18 years	315	5.5%	48	9.0%
No own children -18 years	240	4.2%	40	7.5%
Nonfamily households:	249	4.4%	31	5.8%
Male householder	185	3.2%	20	3.7%
Female householder	64	1.1%	11	2.1%
(US Census Bureau)				

79.4% of all township households include two or more people, compared to 69.7% for Lake County as a whole. 28.2% of all township households consist of married couples with children living in the same house, compared to 24% of households countywide. 8.4% of all households in the township are singleparent families, compared to 7.3% of Lake County households.

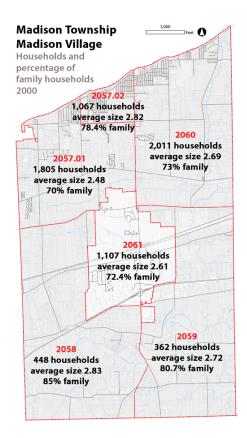
Table 3.10 Household size 2000 Madison Township			
Household type and size	Households	% of households	% of household type
Family households	4,245	74.6%	n/a
2 people	1,734	30.5%	40.8%
3 people	1,019	17.9%	24.0%
4 people	892	15.7%	21.0%
5 people	415	7.3%	9.8%
6 people	137	2.4%	3.2%
≥7 people	48	0.8%	1.1%
Nonfamily households	1,448	25.4%	n/a
1 person	1,179	20.7%	81.4%
2 people	223	3.9%	15.4%
3 people	28	0.5%	1.9%
≥4 people	18	0.3%	1.3%
(US Census Bureau)			

The 2000 Census was the

first to tally unmarried partner households. 346 households in the township (6.1%) consist of an unmarried man and woman living together.

Attracting residents that will not place a demand on schools, such as singles and senior citizens, may be challenging, because the township lacks amenities appealing to those groups, and is located far from large office centers and medical facilities.

10.8% of all households in the township have more than four people, compared to 8.7% of all households and 12.5% of all families countywide. (Table 3.10)



3.4 Age

The median resident age of Madison Township is 36.6 years, compared to Lake County at 38.6 years and the Cleveland PMSA at 37.3 years. The median age of township residents is slightly younger than similar communities in the area. (Table 3.11)

Table 3.11 Median age 2000 Madison Township; comparison to other communities									
Madison Township	Madison Village	Perry Township	Geneva Township	Harpersfield Township	Thompson Township	Lake County	Cleveland PMSA	United States	
36.6	36.8	38.1	37.6	37.8	37.1	38.6	37.3	35.4	
(US Census	Bureau)								

The median resident age of tract 2059 (southeast) is 43.2 years; the highest in the township. The lowest median age is in tract 2057.02 (north), at 34.2 years. The median age in North Madison is generally lower than the rest of the township. (Table 3.12)

Table 3.12 Median as Madison Too		us tracts						
Madison Township	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Mobile home parks	Lake County	Cleveland PMSA
36.6	38.2	34.2	40.3	43.2	34.4	38.5	38.6	37.3
(US Census	Bureau)							

Typical of Lake County's exurban communities, Madison Township has a slightly higher percentage of those age 19 and younger, a similar percentage of adults age 20-54, and a

slightly lower percentage of older adults and senior citizens (55 and older) compared to the county as a whole and the Cleveland PMSA.

While the township has a lower percentage of residents aged 20-24 (4.6%) than the county (5%) and the Cleveland PMSA (5.4%), there is a slightly higher percentage of residents aged 25-34 (14.1%) than the county (12.9%) and PMSA (13.1%); unusual given its location far from amenities catering to younger adults. (Table 3.13)

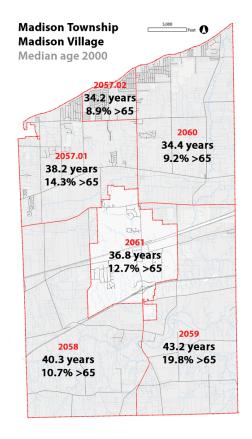


Table 3.9 Age distribution 2000 Madison Township; comparison to other communities									
Age	Mad Town		Lake C	ounty	Cleveland PMSA				
	Persons	%							
≤ 5	1810	6.7%	13,906	6.1%	148,150	6.6%			
5-9	2099	7.8 %	15,486	6.8%	164,872	7.3%			
10-14	2175	8.1%	16,079	7.1%	164,207	7.3%			
15-19	1054	7.0 %	14,689	6.5%	149,349	6.6%			
20-24	697	4.6%	11,460	5.0%	121,813	5.4%			
25-34	2119	14.1%	29,247	12.9%	295,398	13.1%			
35-44	2662	17.7%	38,345	16.9%	363,179	16.1%			
45-54	2098	14.0%	33,689	14.8%	313,916	13.9%			
55-64	1468	9.8%	22566	9.9%	203357	9.1%			
65-74	960	6.4%	17,024	7.5%	165,665	7.4%			
75-84	551	<i>3.7%</i>	11,676	5.1%	121,616	5.4%			
≥85	224	1.5%	3,344	1.5%	39,349	1.7%			
Groupi	ng of age	s 19 and	under, 20	-54, and	55 and ov	/er			
≤19	4,459	29.7%	60,160	26.5%	626,578	27.8%			
20-54	7,576	50.5%	112,741	49.6%	1,094,306	48.5%			
≥55	3,105	20.7%	54,610	24.0%	529,987	23.6%			
(US Cei	nsus Bure	eau)							

Age d	Table 3.14 Age distribution 1990-2000 Madison Township										
Age	19	90	20	000							
Age	Persons	%	Persons	%							
≤19	4,869	31.5%	4,459	29.7%							
20-54	7,733	50.0%	7,576	50.5%							
≥55	2,852	18.5%	3,105	20.7%							
60% - 50% - 40% - 30% - 10% - 0% - 0% - 0% - 0% - 0% - 0% -	1990 2000										
	≤19	20-54	4	≥55							
(US Cei	nsus Bureau)										

Residents aged 55 and older made up 18.5% of the township population in 1990, rising to 20.7% of the population in 2000. The percentage of residents older than 55 is lower than the county as a whole (24.0%). (Table 3.14)

3.5 Education

Residents of Madison Township, as a whole, have lower levels of higher education than residents of surrounding communities and the region.

6.7% of Madison Township residents age 25 or over earned an associate degree, the same percentage as the county and a slightly higher percentage than the Cleveland PMSA (5.7%). However, 8.8 have an undergraduate degree, or advanced degrees, compared to 15.4% of Madison Village, 14.6% of Lake County residents and 14.9% of the Cleveland PMSA population. 4.5% completed postgraduate education, compared to 7.4% in Madison Village, 6.9% of the county as a whole, and 8.4% of the PMSA.

16% of Madison Township residents over 25 didn't graduate from high school or pass a GED examination, compared to 13.5% of Lake County residents and 17.2% of Cleveland SMSA residents. 40% of township residents older than 25 have a high school education, a higher

Madison Township Madison Village Educational attainment 2000 2057.02 85.3% HS grads 9.9% bachelor's degree or higher 83.2% HS grads 2057.01 80.7% HS grads 8.5% bachelor's degree or higher 16.0% bachelor's degree or higher 2061 88.3% HS grads 22.9% bachelor's degree or higher 83.6% HS grads 2058 15.5% bachelor's 86.2% HS grads degree or higher 8.6% bachelor's degree or higher

percentage than the county (34.4%) and PMSA (32.4%). (Table 3.15)

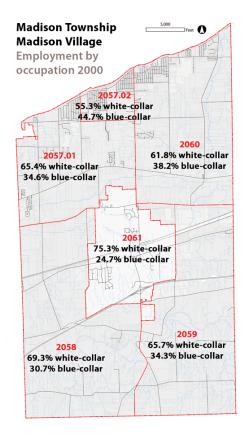
Table 3.15 Educational attainment 2000 Age 25 and over, Madison Township; comparison to other communities										
Education	Madison Township	Madison Village	Perry Township	Geneva Township	Harpersfield Township	•	Lake County	Cleveland PMSA		
Less than 9th grade	3.9%	3.7%	3.3%				2.9%			
Some high school	12.1%	8.0%	9.3%			10.0%	10.6%			
High school grad or GED	40.0%	33.1%	38.8%	42.1%	49.4%	45.5%	34.4%	32.4%		
Some college	23.9%	23.9%	23.5%	18.4%	12.6%	24.0%	23.8%	21.4%		
Associate degree	6.7%	8.4%	7.0%	6.4%	7.8%	7.6%	6.7%	5.7%		
Bachelor's degree	8.8%	15.4%	11.5%	6.0%	11.9%	8.4%	14.6%	14.9%		
Graduate degree or PhD	4.5%	7.4%	6.6%	3.4%	4.4%	1.9%	6.9%	8.4%		
(US Census Bureau)										

Table 3.16 Educational attainment 2000 Age 25 and over, Madison Township census tracts										
Education	Madison Township	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Lake County	Cleveland MSA		
Less than 9th grade	3.9%	4.7%	2.3%	2.5%	4.1%	4.5%	2.9%	4.3%		
Some high school	12.1%	14.6%	12.4%	11.3%	12.4%	12.3%	10.6%	12.9%		
High school grad or GED	40.0%	36.4%	41.9%	42.7%	35.7%	46.3%	34.4%	32.4%		
Some college	23.9%	22.9%	26.4%	26.8%	26.9%	22.0%	23.8%	21.4%		
Associate degree	6.7%	5.5%	7.1%	8.2%	5.5%	6.4%	6.7%	5.7%		
Bachelor's degree	8.8 %	10.2%	5.6%	6.0%	11.5%	5.9%	14.6%	14.9%		
Graduate degree or PhD 4.5% 5.8% 4.3% 2.6% 4.0% 2.6% 6.9% 8.4%										
(US Census Bureau)										

3.6 Industry sector employment and occupation

Among employed township residents, including men and women, 27% work in the manufacturing sector, reflecting the large manufacturing base of Lake County; only 20% of workers in Ohio and 14.1% of workers in the United States are employed in the manufacturing sector. The second largest employer is the education, health, and social services sector, with 17.8% of all workers living in the township; a slightly lower percentage than the county (18.0%). (Table 3.17)

About 7.9% of township residents work in the construction sector; compared to 6.1% for Lake County and 5.6% in the Cleveland PMSA. Those working in the transportation sector are also well represented; 7.2% of the township compared to 3.9 of the county and 4.7% of the Cleveland PMSA. Madison Township residents are three times as likely to be employed in the agriculture sector as other residents of the Cleveland PMSA.



1.1% of residents work in the information technology sector, a lower percentage than the county (1.8%), and the Cleveland PMSA (2.5%). 4.6% of residents work in the finance sector, compared to 7.1% of county residents and 7.5% of PMSA residents.

Outside of tract 2057.01 (west), the percentage of township residents working in the construction sector is much higher than the county and PMSA. Outside of tract 2060 (northeast), township residents are two and a half to three times more likely to work in the transportation sector than others in Lake County. (Table 3.18)

Table 3.17 Employment by industry 2000 Employed civilians age 16 and over, Madison Township; comparison to other communities									
Industry	Madison Township	Madison Village	Perry Township	Geneva Township	Harpersfield Township		Lake County	Cleveland PMSA	
Agriculture	1.6%	0.3%	1.8%	2.0%		2.9%	0.6%	0.5%	
Construction	7.9%	5.5%	9.1%	5.6%	12.2%	10.7%	6.1%	5.6%	
Manufacturing	27.0%	24.7%	26.1%	20.7%	27.8%	23.4%	24.4%	19.1%	
Wholesale trade	3.4%	2.3%	4.8%	2.6%	2.6%	2.6%	4.0%	3.7%	
Retail trade	11.5%	14.3%	12.7%	12.3%	8.8%	14.5%	12.0%	11.2%	
Transportation, warehousing, utilities	7.2%	4.5%	4.2%	4.2%	7.4%	3.7%	3.9%	4.7%	
Information	1.1%	0.7%	1.4%	1.3%	0.5%	0.7%	1.8%	2.5%	
Finance, insurance, real estate	4.6%	6.5%	4.5%	2.4%	1.4%	1.3%	7.1%	7.5%	
Professional, scientific, management, administrative	5.8%	7.7%	6.8%	4.5%	2.2%	9.3%	8.0%	9.1%	
Educational, health, social services	17.8%	20.5%	15.0%	20.1%	20.6%	17.7%	18.0%	20.4%	
Arts, entertainment, recreation, hospitality	5.9%	6.0%	4.9%	8.3%	6.7%	7.9%	6.7%	7.3%	
Other services	3.3%	3.9%	5.1%	3.5%	2.5%	4.7%	4.3%	4.4%	
Public administration	2.7%	3.0%	3.6%	2.5%	1.7%	0.7%	3.1%	3.8%	
(US Census Bureau)									

Table 3.18 Employment by industry 2000 Employed civilians age 16 and over, Madison Township										
Industry	Madison Township	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Lake County	Cleve PMSA		
Agriculture	1.6%	2.2%	3.0%	1.5%	0.0%	1.4%	0.6%	0.5%		
Construction	7.9%	5.6%	8.9%	7.1%	9.1%	10.4%	6.1%	5.6%		
Manufacturing	<i>27.0%</i>	25.0%	29.4%	27.8%	26.6%	28.6%	24.4%	19.1%		
Wholesale trade	3.4%	4.5%	4.2%	3.7%	1.4%	3.1%	4.0%	3.7%		
Retail trade	11.5%	11.0%	7.3%	11.0%	9.9%	13.1%	12.0%	11.2%		
Transportation, warehousing, utilities	7.2%	9.0%	8.4%	11.7%	11.2%	4.6%	3.9%	4.7%		
Information	1.1%	0.8%	1.2%	1.4%	0.8%	1.5%	1.8%	2.5%		
Finance, insurance, real estate	4.6%	6.3%	4.7%	0.0%	2.9%	3.6%	7.1%	7.5%		
Professional, scientific, management, administrative	5.8%	4.5%	7.2%	6.6%	3.9%	5.3%	8.0%	9.1%		
Educational, health, social services	17.8%	18.3%	13.8%	19.0%	23.3%	17.0%	18.0%	20.4%		
Arts, entertainment, recreation, hospitality	5.9%	5.8%	6.1%	4.5%	6.8%	5.9%	6.7%	7.3%		
Other services	3.3%	4.3%	2.8%	2.9%	3.7%	2.4%	4.3%	4.4%		
Public administration	2.7%	2.7%	2.9%	2.8%	0.6%	2.9%	3.1%	3.8%		
(US Census Bureau)										

64.5% of all workers in Madison Township work in the management/professional, service, sales/office sectors, compared to 75.3% for Madison Village, 73.3% for Lake County, and 85% for the Cleveland PMSA. There are a much lower percentage of service workers (11.7%) and those working in construction and manual trades (7.5%) than in surrounding communities. (Table 3.19) With a larger percentage of workers in construction, any slowdown in building activity could have a disproportionate impact on Madison Township.

Table 3.19 Employment by occupation 2000 Employed civilians age 16 and over, Madison Township; comparison to other communities											
Occupation	Madison Township	Madison Village	Perry Township		Harpersfield Township		Lake County	Cleveland PMSA			
Management, professional, related	24.6%	34.0%	31.0%	22.6%	27.8%	25.7%	32.1%	33.0%			
Service	13.0%	11.7%	16.6%	16.6%	11.1%	14.5%	13.0%	14.4%			
Sales and office	26.9%	211 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									
Farming, fishing and forestry	0.4%	0.3%	0.3%	2.6%	1.6%	0.9%	0.3%	0.2%			
Construction, extraction, maintenance	11.7%	7.5%	12.1%	8.4%	15.9%	14.7%	8.7%	8.1%			
Production, transportation, material moving	23.4%	16.9%	15.5%	29.5%	23.2%	18.3%	17.7%	16.6%			
(US Census Bureau)											

Table 3.20 Employment by occupation 2000 Employed civilians age 16 and over, Madison Township census tracts										
Occupation	Madison Township	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Lake County	Cleve PMSA		
Management, professional, related	24.6%	24.4%	22.0%	27.0%	28.7%	19.8%	32.1%	33.0%		
Service	<i>13.0%</i>	15.5%	10.0%	15.4%	12.0%	12.9%	13.0%	14.4%		
Sales and office	26.9%	25.5%	23.3%	26.9%	25.0%	29.1%	28.2%	27.7%		
Farming, fishing and forestry	0.4%	0.3%	1.3%	0.0%	0.6%	0.0%	0.3%	0.2%		
Construction, extraction, maintenance	11.7%	8.4%	14.6%	9.3%	15.5%	14.9%	8.7%	8.1%		
Production, transportation, material moving	23.4%	25.9%	28.8%	21.5%	18.2%	23.3%	17.7%	16.6%		
(US Census Bureau)	C .									

3.7 Income

The median household income in the township (\$45,651) is higher than the Cleveland PMSA (\$42,809), but lower than Lake County (\$48,763) and all surrounding communities except Geneva Township. The median family income (\$51,513) is lower than the Cleveland PMSA (\$52,047), Lake County (\$57,134), and all surrounding communities except Geneva Township. Seven communities in the county have lower family incomes; 16 have higher incomes. (Table 3.21)

Tracts 2057.02 (north) and 2058 have the highest median household incomes in the township. The median household income in tract 2051.1 (west) is \$5,158 below the township median, and \$8.297 below the county mean.

Tracts 2057.02 (north) and 2059 (southeast) have the highest median family incomes in the township, but are still lower than the county median. (Table 3.22)

Table 3.21 Median household and family income 1999 Madison Township; comparison to other communities										
Attribute	Madison Township		,		Harpersfield Township			Cleveland PMSA		
Median household income	\$45,651	\$50,786			\$53,812			\$42,089		
Median family income \$51,513 \$56,761 \$60,313 \$40,358 \$58,136 \$53,571 \$57,134 \$52,047										
(US Census Bureau)										

Table 3.22 Median household and family income 1999 Madison Township census tracts										
Attribute	Madison Township	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	Lake County	Cleveland PMSA		
Median household income	\$45,651	\$40,466	\$51,063	\$51,953	\$49,152	\$43,652	\$48,763	\$42,089		
Median family income	\$51,513	\$49,519	\$56,250	\$53,889	\$54,554	\$47,156	\$57,134	\$52,047		
(US Census Bureau)										

Table 3.23											
Household incom	e distrib	ution 199	99								
Madison Township Census tracts; comparison to county and PMSA											
Madison Township Tract Tract Tract Tract Lake Cleve											
Income	Households	%	2057.01 (W)	2057.02 (N)	2058 (SW)	2059 (SE)	2060 (NE)	County	PMSA		
Less than \$10,000	277	4.8%	6.0%	3.8%	4.0%	1.5%	5.2%	4.9%	9.3%		
\$10,000 to \$14,999	295	5.2 %	7.6%	3.6%	0.7%	1.3%	5.5%	4.7%	6.2%		
\$15,000 to \$24,999	675	11.8%	14.0%	10.4%	9.5%	8.7%	11.7%	11.0%	12.8%		
\$25,000 to \$34,999	<i>753</i>	13.2%	13.6%	8.1%	15.8%	13.9%	14.9%	12.4%	12.8%		
\$35,000 to \$49,999	1236	21.6%	21.0%	23.4%	17.0%	27.0%	21.2%	18.4%	16.7%		
\$50,000 to \$74,999	1459	25.5%	18.2%	32.5%	24.3%	26.5%	28.5%	24.2%	20.1%		
\$75,000 to \$99,999	608	10.6%	8.6%	14.3%	21.0%	8.2%	8.8%	13.0%	10.7%		
\$100,000 to \$149,999	319	5.6%	8.8%	4.0%	6.1%	8.7%	2.8%	8.4%	7.3%		
\$150,000 to \$199,999	53	0.9%	1.0%	0.0%	1.4%	2.6%	0.9%	1.5%	1.9%		
\$200,000 or more	38	0.7%	1.3%	0.0%	0.0%	1.5%	0.4%	1.5%	2.1%		
(US Census Bureau)											

Madison Township has a slightly higher percentage of households with an annual income under \$15,000 (10%) than the county as a whole (9.6%), a slightly lower percentage of households with an income between \$50,000 and \$99,999 (36.1% vs. 37.2%), and a much lower percentage of households with an income over \$100,000 (7.2% vs. 11.4%). (Table 3.23)

In tract 2057.01 (west), 13.6% of households have an annual income under \$15,000. Tract 2059 (southeast) has the lowest percentage of households with an annual income under \$25,000, and the highest percentage of households with an annual income above \$100,000. Tract 2058 (Southwest) has a much higher percentage of households with an annual income between \$75,000 and \$100,000 (21%) than the county (13%) or Cleveland PMSA (10.7%). (Table 3.23)

	Poverty status: persons 1999 Madison Township Census tracts										
Group		lison nship %	Tract 2057.01 (W)	Tract 2057.02 (N)	Tract 2058 (SW)	Tract 2059 (SE)	Tract 2060 (NE)	% of Lake County	% of Cleve PMSA		
All persons under poverty level	886	5.8%	4.6%		3.2%	3.2%	7.9%	5.1%	10.8%		
Persons in poverty: ≤17 years *	231	26.1%	13.4%	45.2%	25.0%	58.1%	22.6%	32.4%	37.5%		
Persons in poverty: 18-64 years *	535	60.4%	52.2%	50.6%	60.0%	41.9%	69.4%	53.1%	51.8%		
Persons in poverty: ≥65 years *	120	13.5%	34.4%	4.2%	15.0%	0.0%	8.0%	14.5%	10.7%		
All families under poverty level	139	3.2%	1.7%	5.2%	2.9%	3.5%	3.5%	3.5%	8.2%		
Families in poverty: married w/children ≤18 *	23	16.5%	38.1%	11.4%	0.0%	0.0%	19.2%	25.1%	17.4%		
Families in poverty: married w/o children *	9	6.5%	0.0%	0.0%	36.4%	0.0%	9.6%	14.6%	11.4%		
Families in poverty: male HH w/children ≤18 *	11	7.9%	0.0%	11.4%	0.0%	54.5%	0.0%	5.3%	6.0%		
Families in poverty: male HH w/o children *	0%	0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	1.9%		
Families in poverty: female HH w/children ≤18 *	96	69.1%	61.9%	77.3%	63.6%	45.5%	71.2%	49.4%	56.9%		
Families in poverty:	7	5.0%	0.0%	15 9%	0.0%	0.0%	0.0%	4.6%	6.5%		

* = Percentage of all persons or families under the poverty level; not percentage of all persons or families HH = householder, no partner of opposite sex present (US Census Bureau)

15.9%

0.0%

0.0%

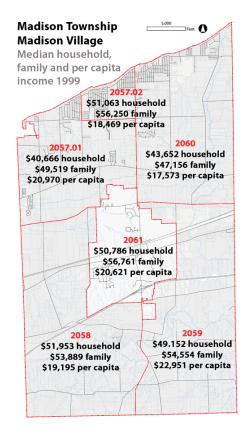
0.0%

4.6%

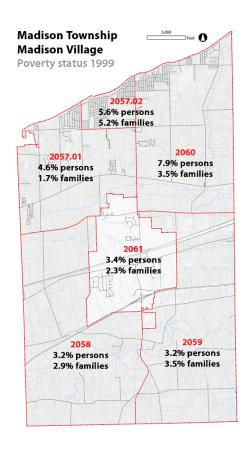
6.5%

0.0%

5.0%



female HH w/o children *



In 1999, 139 families, or 3.2% of all families in the township, live below the poverty level, compared to 3.5% in Lake County and 8.2% in the Cleveland PMSA. 99 residents, or 5.8% of the township population, live under the poverty level, compared to 5.1% of all Lake County residents and 10.8% of all Cleveland PMSA residents.

The highest percentage of poverty is in tract 2060 (northeast), with 7.9 of all people living under the poverty level (7.9%). Tract 2057.02 (north) has the highest percentage of families living under the poverty level (5.2%). The percentage of senior citizens among those living under the poverty level is highest in tract 2057.01 (west), where the majority of mobile home parks in the township are located (34.4% of all persons in poverty).

Female-headed single parent households make up 69.1% of all families living under the poverty level; a much higher rate than the county (49.4%) and PMSA (56.9%). The percentage of female-headed single parent households is highest in tracts 2057.02 (north) and 2060 (northeast), both in North Madison. (Table 3.24)

3.8 Race and ethnicity

The township population is predominantly white, typical of exurban communities in northeast Ohio. The 2000 Census counted just 52 African-American residents, 55 Asians, 32 Native Americans, and 91 mixed race residents living among 15,206 white residents in Madison Townships. African-Americans comprise about 18.5% of the Cleveland PMSA population, and about 2% of Lake County residents. (Table 3.25)

Table 3.25 Race and ethnicity 2000 Madison Township; comparison to other communities								
Race	Madison	Madison	Perry		Harpersfield		Lake	Cleveland
Nace	Township	Village	Township	Township	Township	Township	County	PMSA
White	98.1%	98.4%	98.5%	95.5%	97.3%	98.3%	95.4%	76.9%
Black / African-American	0.4%	0.4%	0.3%	0.9%	0.8%	0.4%	2.0%	18.5%
Native American / Alaskan	0.2%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%
Asian	0.3%	0.2%	0.2%	0.3%	0.3%	0.2%	0.9%	1.4%
Hawaiian / Pacific Islander	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
Other	0.3%	0.1%	0.2%	1.5%	0.3%	0.0%	0.7%	1.4%
Two or more races	0.7%	0.7%	0.7%	1.6%	1.2%	1.0%	0.9%	1.6%
(US Census Bureau)								

There were about 1,500 Hispanic residents in Lake County in 1990; in 2000, their number grew to 3,879. Hispanics now make up about 1.7% of the county population. While still a small percentage compared to the greater Cleveland area, they play a vital role in the economy of eastern Lake County, with many working in its nurseries and starting small businesses. The City of Painesville is home to most Hispanic residents in Lake County, where they make up 12.9% of that city's population.

Table 3.25 Hispanic/Latino population 2000 Madison Township; comparison to other communities								
Ethnicity	Madison	Madison	Perry	Geneva	Harpersfield	Thompson	Lake	Cleveland
Etillicity	Township	Village	Township	Township	Township	Township	County	PMSA
Hispanic or Latino	1.1%	0.8%	0.8%	4.6%	1.3%	0.5%	1.7%	3.3%
Not Hispanic or Latino	98.9%	99.2%	99.2%	95.4%	98.7%	99.5%	98.3%	96.7%
(US Census Bureau)	(US Census Bureau)							

Madison Township is in the heart of Lake County's "nursery country." Despite that, only 187 residents claimed Hispanic origin in Census 2000; 79 of Mexican descent. The presence of Mexican immigrants and migrant workers in the area is an indicator of a stable or growing economy. (Table 3.26)

As more minorities aspire to the "American dream," and enter the middle and upper middle class, some will chose to settle down in Madison Township, for the same reasons current residents have chosen the Township as their home. Expanded retail development may also attract some minority residents to the township.

3.9 Future population

Predicting future population growth – or decline – is an inexact science. Population projections from the 1960s and 1970s were usually wildly optimistic, and did not anticipate trends such as decreasing family sizes, the shrinking importance of manufacturing, the recession of the 1980s, and the "brain drain" affecting Northeast Ohio today. The 1957 Lake County Comprehensive Plan projected 20,000 residents in 1985 for the township.

Table 3.27 offers population projections to 2030 for the Township from NOACA and the Ohio Department of Development, and the Lake County Planning Commission

Table 3.27 Projected population 20 Madison Township	10-203	0							
Year	1950	1960	1970	1980	1990	2000	2010	2020	2030
Population (NOACA, ODOD)	2 001	0 404	12 455	15 270	15 447	15 404	15,288	15,323	15,202
Population (LCPC) 3,891 8,494 12,455 15,378 15,447 15,494 17,119 18,037 18,824						18,824			
(US Census Bureau, NOACA,	Ohio Dep	artment o	f Develop	ment)					

NOACA/Ohio Department of Development population projections consider fertility and mortality rates, life expectancy, and in-migration and out-migration. They do not consider development trends such as commercial development in the US 20/North Ridge Road corridor, or the growing popularity of exurban communities in general.

Lake County Planning Commission projections consider a continued annual average of 69 new housing units, a 6% housing vacancy rate, and a median household size decreasing from 2.65 in 2000 to 2.35 in 2030.

The most significant trend that would affect the population of Madison Township is continued development in exurban areas; not from those leaving Cleveland or pre-WWII era suburbs, but rather families and empty-nesters moving from inner and middle-ring suburbs. A recession or declining regional economy, war, and/or high energy costs may stifle future population growth.

3.10 Goals and policies

Demographic information is a tool that is usually used in planning for community services and programs. A community cannot plan its demographics in the same way it can plan land use, community facilities, roads or parks. However, policies can be implemented to address the problems and needs of certain groups identified in a demographics analysis. Most such policies will appear in other elements of the Comprehensive Plan.

Each primary paragraph (in **bold type**) is a statement of a goal. The subparagraphs are policies for implementing the goal.

DE-1 Madison Township should appeal to a broader range of people.

DE-1-p1 Encourage planning policies and development that will make Madison Township more attractive to middle-income educated professionals and "empty-nesters".

DE-2 Pockets of low-moderate income households should not be created.

- DE-2-p1 Avoid concentration of housing for low-moderate income households in areas where there is already a significant low-moderate income population.
- DE-2-p2 Avoid concentration of community resources serving low-moderate income individuals, where such uses could stigmatize an area.

4 Land use

4.1 Introduction

The Land Use element is not intended to be a lot-by-lot plan for future development and preservation of land in Madison Township, but rather a guide for development and best management practices. To preserve what remains of its semi-rural character, and promote quality development over lowest-common-denominator uses and buildings, the township must address the increasing suburban growth pressures and redevelopment of existing areas.

The Land Use element will evaluate existing conditions, identify emerging patterns, analyze the current zoning scheme, and provide achievable goals and policies to meet the desires of residents and public officials, as identified in the resident survey and various public meetings.

Many land use issues in the North Ridge Road/US 20 corridor area are addressed in the US 20 Corridor Plan.

Table 4.1 Land use distribution Madison Township		
Use	Acres	% of total
Residential	6,427	26.7%
Commercial	1,671	6.9%
Manufacturing/wholesale trade	41	0.2%
Utilities / transportation / communication / information	63	0.3%
Public administration / education / parks /other institutional	2,701	11.2%
Agriculture	9,233	38.3%
Vacant	3,978	16.5%
Total	24,115	100.0%

4.2 Development history and trends

RESIDENTIAL DEVELOPMENT

Up until the 1920s, Madison Township was a primarily rural community, with little residential development outside of residences housing farmers, farm workers, and those who owned and worked for agricultural support businesses. The most densely populated portions of the township included Madison Village and Unionville.

Starting in the 1920s, North Madison was developed as a community of vacation cottages, intended only for seasonal occupation. Streets were laid out in a modified grid, with curvilinear streets interspersed among the blocks. After the start of the Depression, development in North Madison slowed to a halt. Much of the area remained empty or underdeveloped; the miles of roads built in anticipation of continued development were desolate until the 1950s, when post-war prosperity fueled new home construction. Most of the cottages were modified for year-round occupancy, while some others were demolished. Limited infill and teardown activity continues in North Madison to this day.

Most formal residential development – larger residential subdivisions that were approved through a formal subdivision review process – is located north of North Ridge Road/US 20. The bulk of residential development in the township, though, is situated on frontage parcels; lots created through an administrative lot split process with no formal review, which front on established arterial and collector roads.

Because of the way land use is inventoried and categorized, it is difficult to determine the precise amount of land devoted to residential uses. Some nurseries have houses on sites that have not been subdivided from the rest of the parcel, and many large tracts of land that are either empty or used for agricultural purposes have a residential zoning designation. An estimated 6,400 acres, or 26% of the township, is occupied by residential uses (Lake County Auditor land use codes).

COMMERCIAL DEVELOPMENT

Outside of Madison Village, most commercial development in Madison Township is in the North Ridge Road/US 20 corridor area.

During the Great Depression, the federal and state government put men to work improving and extending roads and highways, including North Ridge Road/US 20. The US highway system carried the bulk of intercity vehicular traffic, and US 20 served as the major auto route between Cleveland and Buffalo. After World War II, motels and gas stations were built in scattered locations along US 20, to serve the rapidly growing number of automobile owners and intercity traveler. In 1959, I-90 through Madison Township would open, and intercity traffic on North Ridge Road dropped. Businesses along US 20 remained, but were patronized by fewer customers. Many motels became run down, and some were converted to efficiency apartments. Service stations that once served intercity travelers were converted to used car lots. Small shopping plazas were built near the Hubbard Road intersection starting in the late 1960s. A new Wal-Mart Supercenter at the northeast corner of North Ride Road and Green Road could act as a magnet that will attract more retail and service-oriented businesses to the corridor

The North Ridge Road/US 20 corridor exhibits all the characteristics of strip development. Commercial zoning designations underlay the bulk of land fronting on North Ridge Road/US 20. Commercial uses are scattered across the corridor, with the greatest concentration of retail uses situated between Green Road and Hubbard Road. The remainder of the corridor is occupied by of semi-industrial uses, used car lots, vehicle repair-related businesses, mobile home parks and trade-related uses, interspersed among nurseries, residences, and vacant land.

The US 20 Corridor Plan outlines the development and current condition of the corridor in more detail.

Freestanding convenience stores and small, strip plazas are located at the intersection of Hubbard Road and Chapel Road. A few small clusters of commercial and service-oriented businesses are located in North Madison. There is very little commercial development located south of Middle Ridge Road.

About 1,700 acres or 7% of the township is occupied by commercial uses (Lake County Auditor land use codes).

INDUSTRIAL DEVELOPMENT

M-1 zoned parcels can be found along the Norfolk Southern/CSX rail corridor. An M-1 zoned area on South Madison Road/OH 528 south of Interstate 90 was recently annexed by Madison Village.

There are several properties zoned M-1 fronting on North Ridge Road/US 20, stretching from a point between Hubbard Road and Bennett Road to Dock Road. These properties were zoned for industrial use in anticipation of the future extension of the Lakeland Freeway; a project that

has long since been cancelled. The US 20 corridor plan recommends rezoning these parcels for less intensive commercial uses.

Many semi-industrial uses, such as trucking firms, machine shops, excavating firms, collision shops, and building contractors and mechanical trades people, are located in the North Ridge Road/US 20 corridor.

About 41 acres, or .2% of the township, is occupied by industrial uses (Lake County Auditor land use codes).

AGRICULTURAL USES

Nurseries have long been the cornerstone of Madison Township's economy. However, before the 1970s, the township also was home to more traditional farms. Through the 1970s, nurseries gradually replaced farms that grew agricultural crops such as fruits and vegetables.

About 9,200 acres or 38% of the township is occupied by agricultural uses, mostly nurseries. The bulk of nurseries are located north of Interstate 90, with a concentration in the area between the Norfolk Southern/CSX rail corridor and North Ridge Road/US 20. Vineyards are a growing presence in the more sparsely populated areas south of Interstate I-90.

Frontage development and conflicts with encroaching residential uses threaten the continued existence of horticultural and viticulture industries in the township.



URBAN SPRAWL IN MADISON TOWNSHIP

Madison Township and Madison Village both exhibit the patterns of urban sprawl described by many planners and educators throughout the United States. Anthony Downs (1998) argues that sprawl has been the dominant form of metropolitan areas growth in the United States for the past 50 years. Attempting to give a precise meaning to the word "sprawl" is a challenge. Yet, the majority of the researchers agree on a number of defining characteristics.

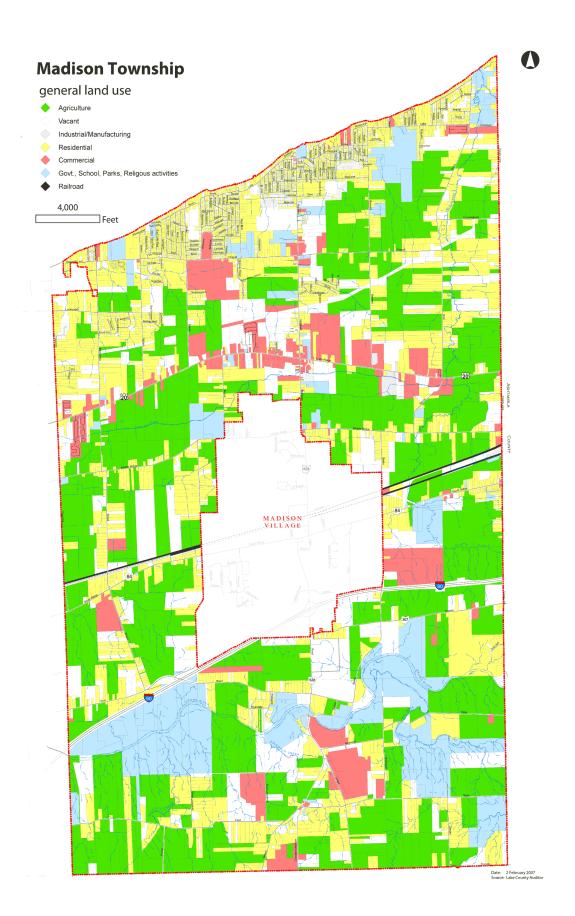
Through their work with the Brookings Institute, Anthony Downs and Henry Richmond have defined the following traits of sprawl encountered in nearly all metropolitan areas in the

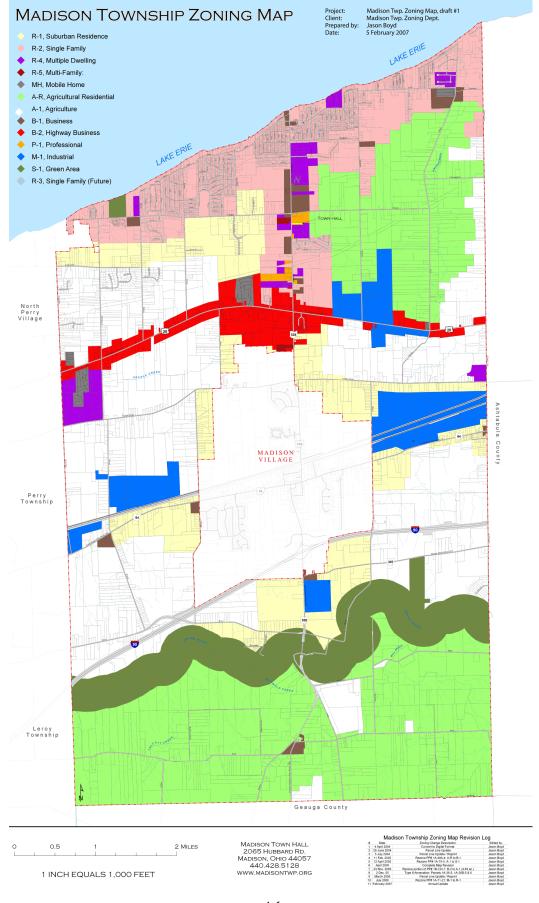
country, including Cleveland. According to Robert Burchell of Rutgers University, ten traits of urban sprawl include:

- 1. Unlimited extension of new development
- 2. Low-density residential and commercial settlements, especially in new-growth areas
- 3. Leapfrog development
- 4. Fragmentation of powers over land use among many small localities
- 5. Dominance by private vehicles
- 6. No centralized ownership of land or planning development
- 7. Great variances in the fiscal capacities of local governments because the revenue- raising capabilities are strongly tied to the property values and economic activities within their own borders
- 8. Widespread commercial development along major roadways
- 9. Major reliance upon the filtering or trickle-down process to provide housing for low-income families
- 10. Spatial segregation of different types of land uses through zoning regulations

All the traits defined by Downs and Richmond apply to Madison Township, and many other communities in Lake, Geauga and Ashtabula counties.

The current pattern of haphazard development and consumption of agricultural land and open space as described by Downs and Richmond, along with other traits of sprawl, may continue into the future. Agricultural preservation programs and innovative zoning strategies will help to reverse this trend. Agricultural buffering, storm water management and increased lot sizes are a few of the tools available.





4.3 Township zoning

Zoning is the primary form of land planning control for local communities in North America. Zoning codes are comprehensive cookbooks for day-to-day development decisions in a community. They expand on the information in the comprehensive plan by providing parcel-specific regulations for the location of different land uses, regulation of those uses, and detailed specifications for the site planning and design of proposed development.

Ohio state statutes authorized the use of zoning in townships in 1947. Madison Township adopted its first zoning resolution ten years later. At the time this comprehensive plan was written, the original 1957 zoning resolution, with amendments, was still in use. The township zoning resolution was written when the community was primarily rural. Today, the zoning resolution does not address current best practice for planning and development in exurban communities. For example, the resolution regulates land use based on Standard Industrial Classification (SIC) codes; a *business* classification system that is poorly suited and not intended for *land use* classification.

Madison Township should consider a comprehensive re-write of its zoning resolution. Ideally, a zoning ordinance should be rewritten every 10 years, in concert with a new comprehensive plan. It is critical that the Township place a high priority on writing and adopting a new user-friendly zoning resolution.

RESIDENTIAL ZONES

In the Madison Township zoning resolution, there are seven residential zoning districts; five single family residential districts (A-1 Agricultural, A-R Agricultural Residential, R-1 Suburban Residence, R-2 Single Family and R-3 Single Family), and two multiple family residential districts (R-4 Multiple Dwelling and R-5 Multiple Dwelling – Medium High). (The M-H Manufactured Housing district is permitted only by a rezoning of B-1 Business and B-2 Highway Business zoned property.)

Bulk requirements (lot size, primary building placement and height) for the zoning districts are as follows (Table 4.2).

Table 4.2 Residential zoning district bu Madison Township	lk requi	rements	i					
Attribute	A-1	A-R	R-1	R-2	R-3	R-4 (SF dev)	R-4 (MF dev)	R-5
Building height (maximum, floors/feet)	2.5/35'	2.5/35'	2.5/35'	2.5/35'	2.5/35'	2.5/35'	3/40'	1/15'
Front yard (minimum)	50'	50'	50'	40'	50'	40'	40'	40'
Side yard (minimum)	15'	40'	15'	10'	20'	10'	30'	10'
Side yard (cumulative, both yards)	35'	80'	35'	25'	40'	25'	60'	25'
Rear yard (minimum)	40'	50'	40'	30'	40'	40'	50'	30'
Lot area per household (minimum)	20,000 ft ²	217,800 ft ²	20,000 ft ²	17,500 ft ²	87,120 ft ²	12,000 ft ²	6,000 ft ²	2,900 ft ²
Density (maximum)	2.17 du/acre	0.2 du/acre	2.17 du/acre	2.48 du/ac	0.5 du/ac	3.63 du/ac	7.26 du/ac	15 du/ac
Lot frontage (minimum)	100'	250'	varies	100'	varies	85'	85'	85'
Floor area (minimum, 1 story)	n/a	1,500 ft ²	1,500 ft ²	1,500 ft ²	1,500 ft ²	1,500 ft ²	n/a	n/a
Floor area (minimum, 1.5 story)	n/a	1,275 ft ²	1,275 ft ²	1,275 ft ²	1,275 ft ²	1,275 ft ²	n/a	n/a
Floor area (minimum, bi-level)	n/a	1,800 ft ²	1,800 ft ²	1,800 ft ²	1,800 ft ²	1,800 ft ²	n/a	n/a
Floor area (minimum, 2 story)	n/a	1,800 ft ²	1,800 ft ²	1,800 ft ²	1,800 ft ²	1,800 ft ²	n/a	n/a
Floor area (minimum, efficiency)	n/a	n/a	n/a	n/a	n/a	n/a	500 ft ²	600 ft ²
Floor area (minimum, 1 br apt)	n/a	n/a	n/a	n/a	n/a	n/a	750 ft ²	600 ft ²
Floor area (minimum, 2 br apt)	n/a	n/a	n/a	n/a	n/a	n/a	900 ft ²	600 ft ²
Distance between buildings	n/a	n/a	n/a	n/a	n/a	n/a	25'	15'

Permitted uses in the districts are as follows.

Table 4.3 Residential zoning district permitted uses Madison Township								
Use	A-1	A-R	R-1	R-2	R-3	R-4 (SF dev)	R-4 (MF dev)	R-5
Agriculture production: crops (01XX)	Р	Р	Р	Р	Р	Р	Р	N
Agriculture production: livestock (02XX)	Р	Р	C	C	C	C	C	N
Agriculture services (07XX)	Р	Р	Р	Р	Р	Р	Р	N
Agriculture: fish hatcheries and preserves (092X)	C	C	N	N	N	N	N	N
Agriculture: forestry (08XX)	Р	Р	Р	Р	Р	Р	Р	N
Airport (45XX)	C	C	N	N	N	N	N	N
Dog kennel	Р	Р	N	N	N	N	N	N
Facilities support services (8744)	C	C	N	N	N	N	N	N
Fishing, trapping and hunting (09XX)	Р	Р	Р	Р	Р	Р	Р	N
Home occupation	Р	Р	Р	Р	Р	Р	Р	N
Hunting (SIC 097X)	C	C	N	N	N	N	N	N
Residence: condominium	N	N	N	N	N	N	Р	N
Residence: multi-family	N	N	N	N	N	N	Р	N
Residence: multi-family 4-8 1BR units	N	N	N	N	N	N	N	Р
Residence: multi-family farm worker	Р	Р	Р	Р	N	N	N	N
Residence: single family (881X)	Р	Р	Р	Р	Р	Р	N	N
Residential building construction (152X)	C	C	N	N	N	N	N	N
Roadside farm stand	Р	Р	N	N	N	N	N	N
Sand and gravel mining (144X)	C	C	N	N	N	N	N	N
P: permitted use by right. C: cond	itional us	se. N: no	t permitte	ed.				

There is no true agricultural zoning in Madison Township. The relatively small minimum lot size of the two agricultural zoning districts effectively renders them as residential districts. The A-1 Agricultural zoning district allows 2.17 dwelling units per acre, while the A-R district has a minimum lot size of 217,800 square feet (5 acre)— the largest minimum lot size of any zoning district in the township—despite the use of the word "residential" in the district name.

The shortcoming of using the SIC as a basis for zoning is readily apparent in the A-1 district. Several residential subdivisions in Madison Township have A-1 zoning. Many uses that would be considered inappropriate in a residential area are permitted in the A-1 district, among them gravel and sand mining, facilities support services (defined in the SIC as "... janitorial; maintenance; trash disposal; guard and security; mail routing reception; laundry; and related services to support operations within facilities), and the vague "agriculture services". According to the definition in the SIC, "agriculture services" include many uses that are not related to the raising of crops and animals, such as:

- Cotton ginning
- Animal hospitals and veterinary services
- Artificial insemination services
- Custom slaughtering
- Animal shelters, kennels, and dog pounds.
- Horse boarding and breeding
- Farm labor contractors and crew leaders, and farm management services
- Landscape architects
- Horticultural advisory services
- Lawn and garden services (e.g., garden planting, lawn care and mowing services, sod laying, turf installation)
- Ornamental shrub and tree services (e.g., arborist services, ornamental tree planting and pruning, tree planting and pruning, utility line tree trimming services)

The hierarchy of residential zones is equally convoluted. For example, the minimum lot size in the R-2 district (17,500 square feet) is smaller than the R-1 district (20,000 square feet), but the minimum lot size in the R-3 district (87,120 square feet; two acres) is *larger* than the R-1 and R-2 districts.

The R-3 zoning district is a floating zone. At the time this plan was written, there was no property in the township with the R-3 zoning designation.

This plan recommends the separation of the R-4 district into two districts; one for single family development, one for multi-family development. Eliminating the R-5 district is also recommended; it was intended to accommodate a single specific development. Land currently zoned R-5 should be given the proposed PUD zoning designation.

This plan recommends a reduced, simplified and more logical categorization of permitted uses in residential districts, making uses consistent across all zoning districts, and ensuring permitted uses are appropriate to the district and the long-term goals of this comprehensive plan.

Although the chart below considers the continuation of both the R-1 and R-2 districts, this plan recommends the consolidation of the R-1 and R-2 districts.

The plan also recommends the creation of a two newer larger lot zones. The current zoning scheme over a significant portion of the township will yield a development style inconsistent with the comprehensive plan. A new zone with projected lot size between .75-2 acres is proposed in the central portion of the township. Further south and on the eastern side, second new zone is recommended with a 2-4 acre minimum lot size requirement. This pattern, along with minor revisions to other areas, will yield a more sustainable development pattern over the long term for the township. Lot sizes would range from 17,000 sq.ft. in the northern portion (where utilities currently exist) to approximately 1-4 acres in the central portion and five acres below the Grand River corridor.

An Open Space Development (OSD) overlay zone is recommended along the flood prone areas of Arcola Creek, south of Route 20. This area is currently zoned B-1, but heavily restricted due the FEMA designation. If developed, land uses should be clustered in the most appropriate locations and key natural resource and open space areas left untouched.

COMMERCIAL ZONES

There are three commercial residential zoning districts designated in the Madison Township zoning resolution; P-1 professional, B-1 business, and B-2 highway business. (The M-H Manufactured Housing district is permitted only by a rezoning of B-1 Business and B-2 Highway Business zoned property.) Permitted uses in the districts are as follows.

	3 ercial zoning district permitted uses n Township			
SIC	Business type	P-1 professional	B-1 business	B-2 highway business
074X	Veterinary services	C	C	С
076X	Farm labor and management services	C	С	С
0781	Landscape counseling and planning	Р	Р	Р
092X	Fish hatcheries and preserves	C	С	С
144X	Sand and gravel mining	C	C	С
152X	Residential building construction	C	С	С
17XX	Special trades contractors	N	С	С
20XX	Food and kindred products (excluding 2011, 2015, 2047 and 2077)	N	С	С
2426	Hardwood dimension and flooring	N	N	С
2431	Millwork	N	N	С
2434	Wood kitchen cabinets	N	N	С
2700	Printing and publishing	N	N	С
3851	Opthomolic goods	N	С	С
386X	Photographic supplies	N	N	С
3873	Watches, clocks, watch cases and parts	N	С	С
41XX	Local and interurban passenger transit	N	С	?
42XX	Trucking and warehousing (excluding 4226)	N	N	С
43XX	US Postal Service	N	С	С
4489	Water passenger transportation	N	С	С
4493	Marina	N	C	С
45XX	Transportation by air	С	С	С
472X	Passenger transportation arrangements	Р	Р	Р
48XX	Communications	N	N	С
521X	Lumber and other building materials	N	N	Р
527X	Mobile home sales	N	N	Р
52XX	Building materials and garden supplies (excluding 5211 and 5271)	N	Р	Р
53XX	General merchandise stores	N	Р	Р
54XX	Food stores	N	Р	Р
55XX	Automotive dealers and service stations	N	С	Р
56XX	Apparel and accessory stores	N	Р	Р
57XX	Furniture and home furnishing stores	N	Р	Р
59XX	Eating and drinking places	N	Р	Р
59XX	Miscellaneous retail (excluding 598*)	N	Р	Р
598X	Fuel dealers	N	С	С
60XX	Depository institutions	Р	Р	Р
61XX	Non-depository institutions	Р	Р	Р
62XX	Security and commodity brokers	Р	Р	Р
63XX	Insurance carriers	Р	Р	Р
64XX	Insurance agents, brokers and services	P	P	P
65XX	Real estate	P	P	P
67XX	Holding and other investments offices	Р	P	P
70XX	Hotels and other lodging places	N	N	Р
72XX	Personal services (excluding 7216, 7217, 7218, 7219, crematories in 7261 and 7299)	N	N	Р
7212	Garment pressing cleaners agent	N	Р	Р

Ad a diam	percial zoning district permitted uses			
-	n Township	P-1		B-2 highway
SIC	Business type	professional	B-1 business	business
7215	Coin operated laundries and cleaning	N	Р	Р
7216	Dry cleaning plants	N	N	С
7217	Carpet and upholstery cleaning	N	N	С
7218	Industrial launderers	N	N	C
7219	Laundry and garment services	N	N	С
722X	Photographic studios, portraits	Р	Р	Р
723X	Beauty shop	Р	Р	Р
724X	Barber shop	Р	Р	Р
725X	Shoe repair and shoe shine	N	Р	Р
726X	Funeral service, excluding crematories	Р	Р	Р
7261	Crematories	N	N	С
7291	Tax return preparation services	Р	Р	Р
7299	Miscellaneous personal services	N	C	С
73XX	Business services (excluding 7389)	n/a	n/a	Р
7311	Advertising agencies	Р	Р	Р
7313	Radio, TV publisher representative	Р	Р	Р
7319	Advertising	N	Р	Р
732X	Credit reporting and collection	Р	Р	Р
7331	Direct mail advertising services	N	Р	Р
7334	Photocopying and duplicating services	N	Р	Р
7335	Commercial photography	Р	Р	Р
7336	Commercial art and graphic design	Р	Р	Р
7338	Secretarial and court reporting	Р	Р	Р
736X	Personnel supply services	Р	Р	Р
738X	Miscellaneous business services (excluding 7383, 7389, dogs in 7381)	N	Р	Р
7383	News syndicates	Р	Р	Р
7389	Business services not elsewhere classified	С	С	С
75XX	Auto repair, services and parking (excluding 751*, 752* tow in, 7532, 7533, 7534)	N	Р	n/a
75XX	Auto repair, services and parking (excluding 752* tow in, 7532, 7533, 7534)	n/a	n/a	Р
7513	Truck rental and leasing, no drivers	N	N	C
7532	Top and body repair and paint shops	N	С	C
7533	Auto exhaust system repair shops	N	С	C
76**	Miscellaneous repair service	N	N	Р
78XX	Motion pictures (excluding 7833)	N	Р	Р
7833	Drive-in motion picture theaters	N	C	C
79XX	Amusement and recreation services (excluding 794* and 799*)	N	Р	Р
794X	Amusement services, commercial sports	N	С	C
799X	Miscellaneous amusements	N	С	C
30XX	Health services	Р	Р	Р
31XX	Legal services	Р	Р	Р
33XX	Social services	Р	Р	Р
36XX	Membership organizations with offices only (excluding 864* and 866*)	Р	Р	Р
3631	Labor unions and similar labor services	С	Р	Р
364X	Client, social and fraternal organizations	С	?	?
366X	Religious organizations	С	?	?
371X	Engineers and architectural services	Р	Р	Р
372X	Accounting, auditing and bookkeeping	Р	Р	Р
373X	Research and testing services	C	С	C
374X	Management and public relations (excluding 8765)	Р	Р	Р
3744	Facilities support services	С	С	С

	3 ercial zoning district permitted uses n Township						
SIC	Business type	P-1 professional	B-1 business	B-2 highway business			
89XX	Services, secretarial	Р	Р	Р			
	P: permitted by right. C: conditional use. N: not permitted. ?: unclear In Ohio townships, traditional agricultural uses, including nurseries, are permitted by right regardless of						

The US 20 Corridor Plan raised many issues with commercial land use classification in the Madison Township zoning resolution.

Permitted uses in the Madison Township zoning resolution are based on are based on Standard Industrial Classification (SIC) categories and definitions. The Standard Industrial Classification (SIC) system is a series of number codes, created in the 1930s, that attempts to classify all business establishments by the types of products or services they make available. The SIC system categorizes business and employer types – *not* land uses – and is not intended to be used as the foundation for a zoning code. There are no SIC codes for houses, parks, vacant land, open space or home improvement centers, for instance. (The SIC system was superseded by the North America Industry Classification System (NAICS) in 1997. As with the SIC system, the NAICS is also not intended to serve as a land use classification system.)

A SIC-based code can also be awkward to administer; it allows all uses under a certain two-digit group of businesses, regardless of their intensity, and restricting those that are not intense yet included under a two-digit group that includes generally disruptive businesses. SIC codes group businesses of a certain type together, but not necessarily of a similar intensity; for example, mobile home dealers are technically in the same SIC group as hardware stores, as are heavy equipment rental and medical equipment leasing. The SIC does not distinguish between microbreweries and massive commercial breweries, a mom-and-pop chocolatier and a large confectionery factory, or a small craft bookbinder and a large commercial bookbinding and printing operation.

Some land uses may be appropriate in a certain zoning district or essential for providing a public service, but they require special attention to determine if they will have an adverse affect on the surrounding area. The conditional use process allows a city or county to consider such uses through a public hearing process. According to Meck and Pearlman (2001, Ohio Planning and Zoning Law), "Conditional uses are also allowed in the zoning code, but they are uses that may have significant impact and thus require an administrative hearing for approval. While the issuance is of a conditional use is thus not a matter of right in the same sense that a permitted use is, the authorization of such use in the ordinance means that a community cannot arbitrarily deny a property owner's conditional use application simply because the use is no longer considered desirable." Communities should not perceive conditional uses as a way to manage or control growth. If a land use is listed in the resolution as a conditional use, the community must accept the reality that these businesses may locate to the area.

In most zoning codes, the intent of conditional review is to give special attention to uses that may be appropriate in a district, but which needs special attention to ensure it would not hurt the surrounding area. For example, a pet supply store may be permitted by right in a commercial zoning district, but a dog day care center would require special review to ensure that noise and odor are kept to a minimum, and that the location will not cause it to bother nearby residents. Conditions can be attached to a conditional use, and the approval may be valid only for a limited time. A conditional use request can be denied if the conditions are not satisfied.

In the Madison Township zoning resolution, uses subject to conditional review include not just those that need special attention and conditions to ensure it is compatible, but also industrial uses that may not be inappropriate for what is supposed to be a commercial zoning district.

The SIC-based system has many other inconsistencies. For instance, heavy equipment rental (SIC 7353, under "business services", 73**) is permitted by right, but truck rental (7513) require conditional use approval. Mobile home sales (527*) is permitted by right; veterinary clinics (074*) require a conditional use permit. Regular auto repair (75**) is permitted by right, but a mechanic cannot change a muffler (7533) without a conditional use permit.

Although the B-2 zoning district is intended for general commercial development, for all practical purposes it functions as a rural industrial zoning district that also allows commercial uses. Permitting industrial uses in the B-2 district, which includes much of the North Ridge Road/US 20 corridor, may undermine the orderly development of both commercial and industrial districts. While industrial uses provide income to the Township, the presence of large scale industrial uses may also be a deterrent to retail and professional businesses. Scattering industrial uses throughout general commercial districts also stifles the creation of a concentrated industrial area, where such uses can benefit from agglomeration.

This plan also recommends the creation of a new zoning district to accommodate heavy commercial in predefined areas. This would provide a more appropriate area (where utilities are planned) for light industrial uses and commercial uses that are recommended to be removed from the existing B-1 and B-2 areas. Where appropriate, this zone may be used for limited retail and office use.

This plan recommends a reduced, simplified and more logical categorization of permitted uses in commercial districts, making their use consistent across all zoning districts, and ensuring permitted uses are appropriate to the district and the long-term goals of this comprehensive plan.

INDUSTRIAL DISTRICTS

The township zoning resolution includes two industrial zoning districts: M-1 Light Manufacturing and M-3 Surface Extraction (table 4.4).

	.4 trial zoning district permitted uses n Township		
SIC	Business type	M-1 light manufacturing	M-3 surface extraction
n/a	All uses permitted in the B-1 and B-2 districts	P, C	N
076X	Farm labor and management services	С	N
07XX	Agricultural services *	Р	N
092X	Fish hatcheries and preserves	С	N
144X	Sand and gravel mining	С	Р
15XX	General building contractors	Р	N
16XX	Heavy construction except highway	Р	N
17XX	Special trade contractors	Р	N
20XX *	Food and kindred products	C	N
23XX	Apparel and other textile products	Р	N
24XX	Lumber and wood products	С	N
25XX	Furniture and fixtures	Р	N
265X	Paper containers and boxes	Р	N
2671	Paper coated and laminated, packing	С	N
2672	Paper coated and laminating, nec	С	N
267X	Miscellaneous converted paper products *	Р	N

	.4 trial zoning district permitted uses on Township		
SIC	Business type	M-1 light manufacturing	M-3 surface extraction
2763	Bags, plastic	С	N
27XX	Printing and publishing allied industry	Р	N
2813	Industrial gases	С	N
283X	Drugs	С	N
284X	Soap, cleaners, and toilet goods	С	N
2875	Fertilizers, mixing only	С	N
2891	Adhesives and sealants	С	N
2893	Printing ink	С	N
295X	Asphalt pavings and roofing material	C	N
299X	Miscellaneous petroleum and coal products	С	N
30XX	Rubber and miscellaneous plastics products	С	N
31XX	Leather and leather products *	Р	N
3211	Flat glass	С	N
322X	Glass and glassware: pressed or blown	Р	N
323X	Products of purchased glass	Р	N
324X	Cement hydraulic	С	N
325X	Structural clay products	С	N
326X	Pottery and related products	С	N
327X	Concrete, gypsum and plaster products	С	N
328X	Cut stone and stone products	С	N
329X	Miscellaneous non-metallic mineral products *	С	N
3315	Steel wire and related products	Р	N
3316	Cold finishing of steel shapes	С	N
3317	Steel pipe and tubes	С	N
34XX	Fabricated metal products	Р	N
35XX	Industrial and commercial machinery and computer equipment *	P	N
36XX	Electronic and other electrical equipment	P	N
37XX	Transportation equipment	P	N
38XX	Measuring, analyzing and controlling instruments	P	N
39XX	Miscellaneous manufacturing industries	P	N
41XX	Local and suburban transport	P	N
4226	Dead auto storage	C	N
42XX	Motor freight transportation and warehousing *	P	N
43XX	US Postal services	P	N
4499	Water transportation services	Р	N
45XX	Transportation by air	C	N
48XX	Communications	P	N
5015	Motor vehicle parts: used	C	N
5093	Scrap and waste materials	C	N
50XX	Wholesale trade: durable goods *	P	N
5154	Livestock	С	N
5169	Chemicals and allied products	C	N
517X	Chemicals and allied products	C	N
5199	Miscellaneous nondurable goods	C	N
51XX	Wholesale trade: durable goods *	Р	N
7216	Dry cleaning plants, except rug cleaning	P	N N
7216	Carpet and upholstery cleaning	P	N N
	Industrial launderers		
7218		Р	N
7219	Laundry and garment services 7300Business services	Р	N
75XX	Auto repair services and parking	P	N
794X	Commercial sports	С	N
873X	Research and testing services	C	N
8744	Facilities and support services	С	N

	4 rial zoning district permitted uses n Township		
SIC	Business type	M-1 light manufacturing	M-3 surface extraction
categor	itted by right. C: conditional use. N: not permitted. ?: uy or subcategory are not permitted. townships, traditional agricultural uses, including nurs		

The M-1 zoning district allows all uses permitted in the B-1 and B-2 districts, but not residences or residential uses. Commercial uses in industrial areas may serve as a nuisance, since the more frequent customer traffic generated could interfere with heavy truck traffic and related operations. Allowing commercial uses also prevents the creation of vibrant retail districts, as encouraged by the US 20 Corridor Plan and good planning practice, because such uses would be permitted throughout a larger, more widely dispersed area. This plan recommends prohibiting commercial uses from the M-1 district, just as it recommends the prohibition of industrial and semi-industrial uses in commercial zoning districts.

Despite the description of the M-1 district as "light manufacturing", many heavy industrial uses are allowed in the district subject to conditional approval, such as steel mills, refineries, chemical plants and junkyards. Some other heavy industrial uses are permitted by right, including heavy construction, glass blowing (SIC does not distinguish between craft operations and large-scale factories), steel wire manufacturing, fabricated metal products, and transportation equipment (this includes everything ranging from auto and truck factories to building guided missiles and space vehicles). The shortcoming of the SIC when used for land use classification is evident; for example, an agricultural research laboratory (SIC 8731) requires conditional use approval, while a factory that manufactures railroad locomotives (SIC 3743) is permitted by right.

This plan recommends the removal of heavy industrial uses from the M-1 zoning district. Heavy industrial uses may be highly disruptive to the township's semi-rural character, and will strain the limited infrastructure capacity of the township and village.

The M-3 district is intended for permanent surface mineral extraction operations. The M-3 district is a floating zone, with no land currently bearing the designation.

As with the plan recommendation for permitted uses in commercial districts, a reduced, simplified and more logical categorization of permitted uses in industrial districts is recommended. Conditional approval of most industrial uses is also recommended, because of the externalities such uses generate, and the potential impact of such uses on neighboring properties and the town infrastructure.

This plan recommends removing a portion of the industrial designation for land along the CSX/Norfolk Southern rail corridor west of Madison Village. Industrial development has never taken place on industrial-zoned parcels in the area. Any traffic that would be generated by industrial uses in the area would be funneled through the Madison Village center, where heavy truck traffic is a primary concern. Industrial traffic would also need to cross the CSX/Norfolk Southern rail corridor at grade to access Interstate 90. This plan also recommends removing the industrial designation for land along South Ridge Road east of Madison Village. There is poor access to the industrial zoned portions of the lots that front South Ridge Road and the lots are sized and configured in a way that makes industrial development difficult.

The industrial area along Bennett Rd. is also recommended to be removed. Poor soil conditions, lack of infrastructure and potential impact along residential corridors are contributing factors to this recommendation.

This plan recommends establishing an industrial area in the vicinity of 528 and River Rd., where there is easy access to Interstate 90, high visibility from the highway, and minimal impact from truck traffic in the Madison Village center. Industrial development should not be piecemeal, but instead take the form of an industrial park or other scheme where there is coordinated planning over a group of contiguous lots.

PLANNED UNIT DEVELOPMENT ZONING (PUD)

Planned unit development (PUD) zoning provisions permit large parcels to be developed in a more flexible manner than allowed by the underlying zoning. PUD zoning allows developers to mix land uses, such as residential and commercial, on a large parcel and to develop the parcel at greater densities, and with more design flexibility, than otherwise allowed by the underlying zoning district. PUD provisions often require developers to compensate for the impacts of their projects by setting aside significant and usable open space, providing infrastructure needed to service the development, or offering other community facilities and services.

PUD's in Madison are accomplished through the Board of Zoning Appeals. While permitted under O.R.C., this plan recommends the creation of a PUD section, subject to district change approval by the Township Zoning Commission and Township Trustees.

A mixed use PUD zone is recommended the northern portion of the North Ridge Rd./Hubbard Rd. node. Currently, multiple zoning districts exist along the Hubbard Road corridor. Creating a PUD with a variety of uses (retail, commercial/business, and potential residential) under a unified development plan will yield a more desirable area over the long term.

4.4 Frontage development

The majority of subdivision activity in Madison Township involves the administrative splitting of lots. Lots are created by splitting parcels fronting the road from a larger parcel, often a farm or nursery. O.R.C. 711.131 requires the County Planning Commission to administratively review minor subdivisions in the unincorporated areas of the county, including Madison.

This type of development, called frontage development, ribbon development or residential strip development dramatically changed the character of Madison Township over the past four decades, harming much of the rural ambience that initially drew residents to the township.

There are many disadvantages to frontage development.

- The township and county subsidizes frontage development. Unlike subdivisions with new
 roads, developers do not have to pay to build new roads or infrastructure for frontage lots.
 The cost of development shifts from the builder, who would normally be required to build
 roads in a subdivision, to the township and county, which built the existing road where
 the lot has frontage.
- Frontage development harms the character of rural areas. With continued splitting and development of frontage lots, the viewscape of collector roads changes from that of farmhouses, nurseries, and wooded lots to a continuous procession of houses, occasionally interrupted by a farm entrance or the rare frontage that was not yet subdivided or sold.
- In certain instances, the lots that were created from frontage development are often underused; too large to mow but too small to farm. The rear end of the lot, which may have been in active agricultural production, often reverts to scrub forest.
- The many individual driveways create points of conflict that make the road less safe for pedestrians, cyclists and drivers.

Property owners at the south end of north-south roads face an increasingly heavier share
of traffic on the road, generated by residential frontage development at the north end of
the roads. A single family house generates an average of 9.6 vehicle trips per day.

Increased lot sizes and lot width-to-depth ratios, front yard setbacks on collector roads should be increased.

The transportation element recommends working with the Lake County Planning Commission to implement more flexible street design standards to allow narrower pavement width for streets that will serve few houses, and decrease the cost of developing away from existing through streets. New residents on collector roads should be made aware that they live on what is intended to be a through street – not a residential road – and there is no guarantee traffic volume will remain low in the future.

4.5 Strip commercial development

Many issues stemming from strip commercial development are raised in the US 20 Corridor Plan.

Over the last 50 years, auto-dependent commercial development has developed along highways to the point where it dominates the form and character of area communities. Commercial and semi-industrial strip development, such as the area along the North Ridge Road/US 20 corridor, is one result of such development.

Extending over long stretches of frontage, linear strip may decrease the price of land, cause traffic congestion by allowing development that will interfere with the function of North Ridge Road/US 20 as a through route, prevent the creation of a vibrant commercial district, and reduce a community's sense of place or 'front door.' Madison Township is not alone. Excepting the nurseries, the North Ridge Road/US 20 strip resembles that of most other exurban communities in Ohio. Controlling strip development can seem difficult, because its growth is incremental; it happens so slowly that it is not viewed as a crisis until problems with traffic, noise and aesthetics become noticeable.

Current zoning allows for commercial and semi-industrial development to be located out along almost the entire route of North Ridge Road/US 20 in the township. North Perry Village also faces similar issues following the North Ridge Road/US 20 corridor. In Madison Township, North Perry Village and Perry Township, development along the corridor occurs in a piecemeal fashion.

An alternative to a strip development pattern, yet still meets the demand for retail space, is to designate retail clusters or nodes around major intersections and limit retail uses on the rest of the corridor. These nodes can be planned to integrate other commercial, office, and housing development, along with retail uses. While recognizing the desire for commercial zoning along US 20, this plan recommends a similar policy is where applicable. Commercial development should be encouraged initially along major intersections, with commercial district expanding linearly only when needed; for instance, lining Hubbard Road or South Madison Road for thousands of feet. Consideration should be given amount of undeveloped commercial zoned land in the township when analyzing request for commercial rezones.

The plan recognizes US 20 is key to the commercial and light industrial base to the Township. The expansion of utilities along US 20 creates a more attractive option for commercial uses. In a best case scenario, development should be encouraged to these areas first before expanding further down the corridor. Design guidelines are encouraged in the future to help project a unified development scheme over the long-term.

4.6 Vehicle related uses

Another issue raised in the US 20 Corridor Plan is the growing predominance of vehicle-related uses along the North Ride Road/US 20 corridor.

The North Ridge Road/US 20 corridor, not just in Madison Village but also North Perry Village and Perry Township, is home to a growing number of vehicle-related uses. Most vehicle-related uses in the township, both along the corridor and outside of it, were not subject to design standards when initially established. Future businesses along North Ridge Road/US 20 corridor should be subject to consistent, fair and feasible design standards.

One reason used car dealers and other vehicle-related uses locate in Madison Township is because there is a large surplus of commercial-zoned land in the area. With a small demand for commercial-zoned land but a large supply, the price may decrease. Vehicle-related uses tend to agglomerate together. Mechanical commercial businesses, such as heavy equipment rental, propane sales and contractor supply yards, also tend to locate near concentrations of vehicle-related businesses. Once a commercial pattern is established, it perpetuates itself, making it harder to attract other types of businesses.

While there is a need for vehicle sales and service, there is no reason for their proliferation in the township. Limiting the speculative expansion of commercial zoned areas may reverse the market forces that now make Madison Township an ideal location for vehicle-related businesses. This plan also recommends that vehicle-related uses be permitted only as a conditional use, and subject to the same architecture, site planning, landscaping, signage and lighting regulations as all other commercial uses.

4.7 Site planning and design

SITE PLANNING

Commercial site planning is guided only by the building setback, parking, and very limited landscaping requirements in the zoning resolution. The resulting development usually has one of two forms. On larger lots, a commercial building will be placed in the far rear end of the lot, separated from the street by a large, parking lot, much of which usually stands empty. On smaller, narrower lots, the primary building is usually close to the right-of-way, usually separated from the street by a small, often unpaved parking area. The rear of the lot remains empty and unused, an inefficient use of land. The resulting development pattern reinforces the strip-like character of commercial areas in the township.

Responses from the US 20 Corridor Plan stakeholder survey show that respondents are supportive of alternatives to traditional auto-oriented retail development, where a row of buildings are set behind a large parking lot. This plan recommends adopting site planning requirements that encourage a hybrid site plan, with parking split between the side and rear of a building, and "retail villages," where many buildings are oriented towards an internal drive or road network that recreates the feel of a village street. This plan also recommends standards that will promote a pedestrian-friendly environment inside shopping centers, such as requiring internal plazas and a walkway system connecting buildings and parking areas on the site. Requiring improved pedestrian connections between buildings and the sidewalk are also recommended.

ARCHITECTURAL DESIGN

There are no regulations governing the appearance of commercial or industrial development in Madison Township.

Ohio Senate Bill 18, passed in 2004, gives townships the right to adopt architectural regulations. Specific building materials cannot be regulated, but any other aspect of building and site design and aesthetics can be controlled. Architectural standards, if adopted, will require high quality building designs that offer a positive impression of the township and its businesses, and help reinforce a "sense of place."

The ability to regulate these features should be done in a "user-friendly" manner. Over restrictive specifications and cumbersome review timelines will discourage potential developers and may ultimately result in a project that detracts from the overall objective.

National chains establishing a location in an area with no architectural regulations will usually build a default "prototype" building. Such buildings usually have little architectural detailing, and are designed to reinforce corporate identity and function as a sign, regardless of its compatibility with community character. National corporations will forego their "prototype" buildings and build a structure that better respects local character – but only if they are required to.

Responses from the US 20 Corridor Plan stakeholder survey and the resident survey for this comprehensive plan express support for higher quality commercial design. As in the US 20 Corridor Plan, this plan recommends the adoption of architectural design regulations, applicable to non-residential development.

Architectural regulations for commercial structures should address the following:

Building mass

 Prohibit large simple building footprints; require variations in the footprint that are not superficial.

Exterior walls

- Materials: brick, stone, or a combination of masonry materials and wood. Metal prefabricated structures should not be permitted.
- Pattern: require repeating, offset, reveal, pilaster, projecting ribs, fenestration patterns, piers, color change, texture change, material module change.
- Base: require recognizable wainscot.
- Top: require cornice treatments, overhangs, brackets, stepped parapets.
- Four sided design: walls must include materials and design characteristics consistent with those on the front.
- Projections and recesses: require wall plane projections and recesses for long walls.
- Street facing walls: require breaking up walls with change in plane, texture, windows, or other equivalent elements that divide the wall into human scale proportions.
- Facades: require divided and proportioned using features such as windows, display areas, entrances, arcades, arbors, and awnings along a percentage of the façade.
- Building entrances: require clear definition with an awning, arcade or portico.
- Transparency: require window coverage along a percentage of a wall.
- Garage doors: require segmentation, windows, recession behind a building façade, positioning where they don't face the street.

Roof

- Require overhangs, minimum slope, regulate maximum continuous plane of roofline.
- Rooftop mechanical equipment: require screening, limit visibility from public right-of-way and adjacent properties.

Building colors

- Require muted colors, limit use of primary or corporate colors.
- Limit color changes to change of plane or reveal line.

Gas station canopies

- Require support pole covers.
- Require recessed lighting, limit number of fixtures and lumens.
- Prohibit corporate branding and colors along the entire fascia.

Industrial and other non-residential uses should be subject to similar, but slightly less rigorous requirements.

Architectural review boards are common in Ohio, but outside of the state architectural regulations are more often administered by a planner or zoning administrator, with design approval subject to the decision of a planning or zoning board. To keep the development review process streamlined, this plan recommends architectural review by the Zoning Commission, with assistance of the Zoning Inspector, Lake County Planning Commission staff or a consulting architect.

SIGNS

In the B-2 zoning district, freestanding signs on sites occupied by a single business may be up to 60 square feet, and sites with multiple businesses up to 160 square feet, depending on road frontage. Maximum freestanding sign height is 24 feet.

The maximum size of building-mounted signs is determined by a complex table, permitting from one to square feet of signage for each linear foot of wall, depending on the wall length, with a maximum of 100 square feet.

While not strict, township sign regulations are not overly restrictive. However, current regulations are not well suited to commercial areas along US 20 in Madison Township. Commercial lots are often very narrow, so freestanding signs on different sites are spaced closely, creating visual clutter. Small businesses give more attention to the size of their sign than the overall quality. Small businesses often make the mistake of trying to convey too much information in a limited space, so their signs become unreadable. The problem is compounded for signs identifying multiple tenants.

When everybody shouts, nobody is heard. For signs to be effective, they must not barrage viewers with information that will soon be forgotten, but stand out on their own. While many businesses instinctively view small signs as less effective than larger signs, the message they convey is distinct and better understood with less competition from other signs competing for the viewer's attention. The presence of smaller signs reduces visual clutter, and thus improves the appearance of a commercial area.

This plan recommends reducing the maximum area and height of commercial signs. This plan also recommends imposing strict design requirements to make signs appear more legible and professional.

The zoning resolution allows businesses to display portable signs for 30 days in a row, with a 60 day break between displays. Portable signs are usually cheaply made and poorly maintained, often placed in unsafe locations such as clear vision triangles, and often have flashing lights even though the zoning resolution prohibits animated signs. The Township should continue to permit such signs, but increase the design standards and potential reduce time requirements.

Billboards are uncommon in most of Lake County. Though billboards are not common in Madison Township, their presence in some areas detracts from the semi-rural environment, increases visual clutter and possibly compromises highway safety.

The zoning resolution may allow billboards in residential areas. "Outdoor advertising signs," undefined by the zoning resolution but usually interpreted to mean "billboard" in most zoning codes, are permitted in the A-1 and A-R zoning districts. Billboards are not permitted in the B-1, B-2 and M-1 districts. SIC code 7319, "advertising," is a permitted use in the B-1 and B-2 districts. Although the intent is that the code refers to an advertising agency, some could interpret it loosely as any advertising activity, including a billboard.

The plan recommends prohibition of all billboards and other off-premises advertising signs in the township.

North Ridge Road/US 20 and Interstate 90 are federal aid highways, with billboards subject to the National highway Beautification Act. Removing billboards through amortization is not permitted along federal aid highways. However, billboards can be removed by requiring it as a condition of development. Illegal billboards can also be removed regardless of location on a federal aid highway.

LANDSCAPING

The site development plan section of the Madison Township zoning resolution describes the process for reviewing site plans for commercial development. The section also contains five paragraphs, only one having specific numerical requirements that make up the total extent of landscaping requirements for the township.

- Maximum possible visual and auditory privacy for surrounding properties shall be provided through good design and landscaping buffers.
- Where located adjacent to residentially zoned property, the required setback area shall be maintained with natural vegetation and shall have supplemental plantings to provide visual and sound attenuation.
- Where adjacent to non-residentially zoned property, the maximum lot coverage of building, parking, drives and other improvements shall be 90%. The remaining 10% of the site shall be landscaped with grass and plant material or retained in a natural state with vegetative cover.
- Parking and service areas shall be screened from view from adjacent residential properties. Screening of parking and service areas shall be provided by means of landscaping, ornamental walls, fences, or similar means. Use of slow or low-growing deciduous trees of various varieties shall be used on the site.
- In parking areas designed to accommodate 30 vehicles or more, visual relief shall be provided by means o landscaped dividers and/or islands.

The large percentage of impervious surface permitted on a site contributes to increased volume and velocity of stormwater runoff, and exacerbated drainage and flooding problems, all of which can harm the Arcola Creek watershed and other environmentally sensitive waterways in the township and village.

In the image preference survey that was conducted as part of the planning process for the US 20 Corridor Plan, images showing commercial development with lush landscaping usually scored higher than those with minimal landscaping. Commercial sites in Madison Township with little or no landscaping all scored at the bottom. The lack of landscaping at most shopping centers and commercial sites is ironic for a community associated with the nursery industry.

The plan recommends adopting comprehensive non-residential landscaping regulations requiring landscaping bufferyards at the front, side and rear of the site, along buildings, driveway throats, islands that cap and break up parking rows, and islands that divide large parking areas into smaller, more manageable units. Required buffers at the front of a site must be deep enough to accommodate future road widening projects. The plan also recommends minimum requirements for the number of trees and shrubs, and tree protection requirements. Protection of watershed is recommended by prohibiting vegetation that requires fertilizer in areas that drain directly to waterways.

Landscaping regulations should be in a section of the code containing other bulk and site design standards.

4.8 The basics of transfer of development rights (TDRs)

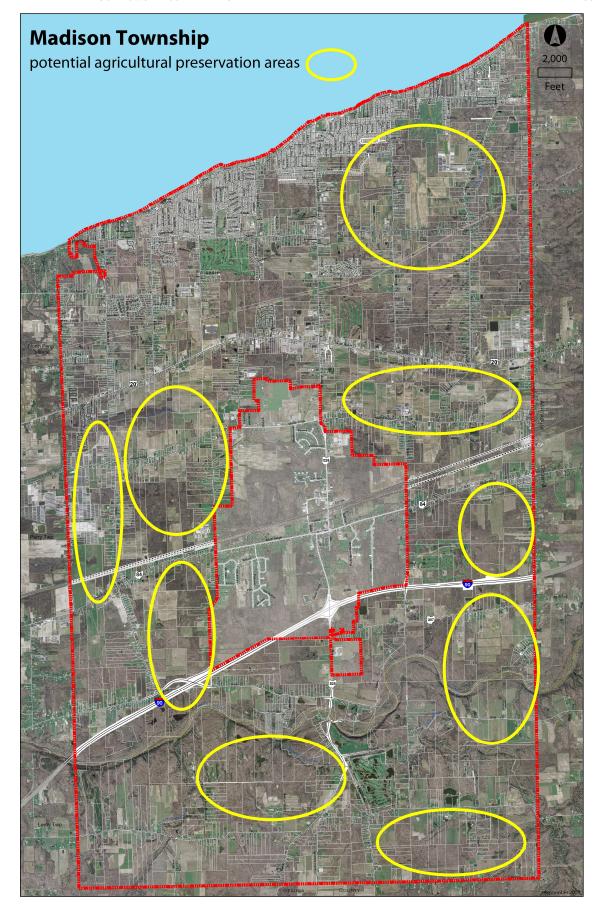
Transfer of development rights (TDR) is an effective tool that has been used to protect farmland and open space in one part of a community, while encouraging development in another. Transfer of development rights programs allow landowners to voluntarily transfer the right to develop one parcel of land, usually an agricultural or environmentally sensitive area, to a different parcel of land in an area where higher-than-normal density would be tolerated and desirable. The parcel of land where the rights originate is called the "sending" parcel. When the rights are transferred from a sending parcel, the land is restricted with a permanent conservation easement, and the development potential is frozen. The parcel of land where rights are transferred is called the "receiving" parcel. Buying these rights generally allows the owner of a receiving parcel to build at a higher density than normally permitted by the base zoning.

Transfer of development rights programs have been used in other areas of the country for the preservation or protection of open space, natural resources, farmland, and urban areas of historical importance, but it has not been used in Ohio.

See appendix for detailed case study in Madison Township and Madison Village.

4.9 Agricultural preservation

The nursery industry remains the anchor of Lake County agriculture. The 1998 Census of Horticultural Specialties counted 68 horticultural operations in the county, generating \$59,153,000 in total sales, and \$54,656,000 in wholesale sales. The Nursery Growers of Lake County have tallied over 100 nurseries in Lake County, generating an estimated \$90,000,000 in annual wholesale sales. In 1983, 2,816 acres in Lake County were used for horticultural operations. In 1999, 5,000 acres of CAUV land was used for horticultural operations. The majority of nurseries in Lake County are in North Perry Village, Perry Village and Perry and Madison Townships, north of Interstate 90



Increasing urbanization, and its impact on runoff patterns and groundwater supply, is a threat to the nursery industry in the village and eastern Lake County. Grading for adjacent residential development changes the established natural drainage pattern in areas near nurseries, directing stormwater runoff away from nursery sites. Increasing impermeable surface in an area near the nursery, such as building a parking lot where water drains to a storm sewer or ditch, can decrease the amount of groundwater available at a nursery site. Impact to nurseries from altered hydrology is not considered when reviewing a subdivision or other proposed nonagricultural development.

As well as transfer of development rights and purchase of development rights, there are other tools available to preserve agricultural uses in Madison Township.

CAUV PROGRAM

Locally, farmers can enroll in the Current Agricultural Use Value (CAUV) program. CAUV is a voluntary real estate tax assessment program that is the result of a referendum passed by Ohio voters in November 1973. Under CAUV, owners of farm tracts 10 acres or larger are given the opportunity to have their parcels taxed according to their value in agriculture. If the land was not part of the CAUV program, the tax value could be considered the speculative value of non-farm development, or what would be full market value.

According to state statutes, a landowner must devote the parcel "exclusively to agricultural use" to qualify for use value assessment. Agricultural land that lies fallow for one year is also eligible for CAUV.

A farmer that converts land to a non-agricultural use while enrolled in the CAUV program must pay a penalty equal to the tax savings over the past three years. According to the Lake County Auditor, approximately 6,700 acres is currently enrolled in this program in the township.

Protecting farmland helps communities maintain their semi-rural atmosphere and aids in reducing future demands for costly new community services, including road maintenance. Local, state and national studies have shown the economic balance and benefit provided with active agriculture in a community. Local organizations can assist local land owners interested in pursuing preservation measures.

AGRICULTURAL SECURITY AREAS (ASA's)

In May 2005, the Ohio Agricultural Security Area (ASA) program went into effect. This incentive based land protection measure allows one or more landowners to request from the County Commissioners and Township Trustees to enroll at least 500 acres of contiguous farmland into an ASA for 10 years. They are not designed to stop development, but to protect farmland by creating special areas where agriculture is encouraged and protected. Program details include (Ohio Department of Agriculture):

- 1. Ohio's Agricultural Security Area (ASA) legislation, House Bill 414, was sponsored by Representative Tony Core and passed the Ohio House on May 11, 2004, by a vote of 93 to 4 and passed the Ohio Senate on December 7, 2004, by a vote of 29 to 0. Governor Bob Taft signed the bill on February 15, 2005, and it went into effect on May 18, 2005.
- 2. To be eligible, a farmland owner must be enrolled in the Current Agricultural Use Valuation (CAUV) tax program and enrolled in an Agricultural District; must be utilizing "best management practices;" and must not have any civil or criminal actions in violation of Ohio or U.S. environmental law in the 10 years immediately preceding the date of application.
- 3. Eligible farmers, who either individually or collectively own 500 or more contiguous acres of farmland, would submit an application requesting a resolution of support from both the township trustees and county commissioners to form an ASA for 10 years. The trustees or

commissioners may hold separate or joint public hearings prior to approving or rejecting an ASA application.

- 4. During the 10-year enrollment period only agricultural activity as defined by Section 5713.30 of the Ohio Revised Code is permitted. However, a farmer may request a non-farm development activity be undertaken and local governments may approve such activity, but only if the local governments determine that such activity would not impair the ability to farm and the land must remain enrolled in CAUV, with one exception. The exception is that one residence per 40 acres is permitted for the landowner's relatives.
- 5. ASAs are a partnership between the farmland owner and the local elected officials. The local governments commit not to initiate, approve, or finance any non-farm development activity, such as extending water and sewer lines, building new roads, housing subdivisions, commercial or industrial facilities, etc., within the ASA during the 10-year term. Likewise, landowners commit not to undertake any non-agricultural development on their farmland.
- 6. In addition to being protected from incompatible development and receiving the benefits of CAUV and Agricultural District enrollments, farmers may receive, at the discretion of the township trustees and the county commissioners, a real property tax exemption on new or expanded farm buildings. A minimum investment of \$25,000 is required and local officials may establish a maximum investment cap. The tax exemption would be up to 75% and up to 10 years.
- 7. If a landowner violates or withdraws from the ASA during the 10-year period of enrollment, a recoupment of the tax exemption benefits will be made and the landowner must pay a \$500 fine to the township trustees and the county commissioners.
- 8. If during the first five years of the ten year enrollment a landowner(s) violates or withdraws from the ASA and the ASA then has less than 500 acres, the ASA expires. All landowners who received an ASA tax exemption must repay the tax benefits, plus an interest penalty on that amount equal to the average bank prime rate.
- 9. If during the last five years of the ten year enrollment a landowner(s) violates or withdraws from the ASA and the ASA then has less than 500 acres, the ASA does not expire. However, the landowner(s) who drops out must pay a \$500 fine and repay any tax benefits granted, plus an interest penalty on the tax benefits equal to the average bank prime rate. Other land owners who remain enrolled in the ASA are not penalized. After the 10 year enrollment ends, however, the ASA must contain at least 500 acres in order to be renewed for another 10 year term.

In Lake County and Madison Township, 500 acres may be too large for our agricultural type. This plan recommends working with the Planning Commission and Lake County Soil and Water Conservation District in creating an acceptable model code to meet local needs. This will also require cooperation from our State Representatives.

CONSERVATION EASEMENTS

Landowners have the option to extinguish the right to develop the land that they own. They may do so by establishing a conservation easement, which will protect the land from being developed. Agricultural conservation easements are designed specifically to protect farmland from development and to keep it available for agricultural land uses. The landowner retains ownership and all the other rights of ownership of the parcel. Easements may apply to the entire parcel or a portion of the parcel; most are permanent. All conservation easements legally bind future landowners forever or for the term of the easement.

There are currently two easement purchase programs available to compensate landowners for protecting their land with an agricultural conservation easement. Landowners may also donate all or a portion of their easement and receive income and estate tax benefits from giving up the easement value of their property.

OHIO AGRICULTURAL EASEMENT PURCHASE PROGRAM (AEPP)

The Ohio Agricultural Easement Purchase Program (AEPP) is a part of the Clean Ohio fund which provides grants to preserve farmland, clean up brownfields and to create recreational green spaces in Ohio. The AEPP requires a minimum 25% monetary match or landowner donation of 25% of the appraised value of the easement and a 40 acre minimum parcel of land. At the publication date of this plan, the AEPP will pay a maximum of \$2,000 per acre and \$500,000 per farm to successful applicants. Applications are made on behalf of landowners by local land trusts or by the Lake County Soil & Water Conservation District. An annual application period usually opens in the spring. The factors which determine which applications are selected include soil quality, proximity to other protected areas, use of best management practices, local support and planning.

FEDERAL FARM AND RANCH LANDS PROTECTION PROGRAM (FRPP)

The Farm and Ranch Lands Protection Program (FRPP) provides matching funds to State, Tribal or local governments and non-governmental organizations with existing farm and ranch land protection programs to purchase conservation easements. The FRPP will pay 50% of the appraised fair market value of the easement and requires a 25% minimum match from a governmental entity and a 25% maximum match from the landowner. To qualify, the land must contain prime, unique or other productive soil, be covered by a conservation plan for any highly erodible land, be large enough to sustain agricultural production, be accessible to markets for what the land produces, be surrounded by parcels of land that can support long-term agricultural production and be owned by an individual or entity that does not have an adjusted gross income that exceeds \$2.5 million.

Applications are made on behalf of landowners by local land trusts or by the Lake County Soil & Water Conservation District. The annual application period is in the spring.

RIGHT TO FARM

A farmer in Medina County got a ticket for disturbing the peace after a neighbor complained that he was out in the fields too late. A homeowner in Preble County threatened to file a lawsuit because a neighbor's tractor kept him from hearing his television. Neighbors sued a farmer in Summit County for using a device that keeps birds out of fields by mimicking the sound of shotgun blasts. The lawsuit was dropped.

Ohio has a Right to Farm Act that in most cases protects farmers from nuisance suits over externalities caused by normal farming operations; sound, smell, traffic, dust, vibration, and chemical use. Right to Farm legislation does not protect those who operate negligently or illegally.

A county commissioner in Larimer County, Colorado wrote The Code of the West in 1995. The Code is an etiquette manual intended to remind suburban refugees that rural areas are not necessarily romantic or bucolic; municipal services may be lacking, farms can create unpleasant externalities, and danger from forest fires and flash floods may be a constant threat.

Many rural and urbanizing countries followed the lead of Larimer County, and now issue advisory guides similar to the Code of the West, for those contemplating moving into exurban and rural area. Reference to these guides is added as a plat note on new subdivisions.

Madison Township does not have an equivalent to the Code of the West, although it can be easily drafted. Prospective exurban and rural residents need to be aware of conflicts between agricultural and residential uses, and of externalities that are foreign to their former urban and suburban settings.

AGRITOURISM

Agritourism is a commercial enterprise at a working farm, conducted for the enjoyment of visitors while generating supplemental income for the owner. Agritourism opportunities include outdoors recreation (horseback riding, cross country skiing), direct sales (self-pick farms, farm stands), educational experiences (tours, historical exhibits), accommodations (bed and breakfast inns), and entertainment (corn mazes, hayrides, concerts).

Agritourism is a growing sector of the tourism trade. About 62.4 million Americans – nearly 30% of the U.S. population – visited a farm during a 12-month period in 2000-2001, according to the 2000 National Survey on Recreation and the Environment.

Several counties in California sponsor "farm trails," which are similar to wine routes. Farms along the trail offer tours, direct sales to the public, and occasionally lodging and dining. The California Agricultural Homestay Bill exempts farms and ranching operations that offer overnight stays from the more stringent requirements of operating a commercial restaurant. To qualify for overnight stays, the farms and ranches must produce agricultural products as their primary source of income. Farmers are limited to six guest rooms and 15 visitors a night.

In Ohio, Freshwater Farms in Urbana offers tours of their hatchery, and operates a farm market offering products from the hatchery and other area agricultural operations.

The most visible agritourism-related activities in Lake County can be found at wineries in Madison Township. Chalet Debonne offers a variety of attractions appealing to tourists, including tours, tasting, a gift shop, an amphitheatre for concerts, live entertainment, and outdoor dining. Claire's Grand River Winery offers tours by appointment. Maple Ridge Vineyards offers on-premises wine sales, tasting and tours. There is the opportunity to develop more amenities that could attract those touring Winery District visitors, such as bed and breakfast inns, hotels, restaurants and regular tours.

Some nurseries in Lake County offer sales direct to the public, but there is no coordinated effort to promote local nurseries as a destination to tourists or day trippers.

Zoning restrictions can limit agricultural tourism opportunities in many Lake County communities, including Madison Township. In the township, some agricultural operations take place on property with residential and commercial zoning designations. Zoning regulations may allow agriculture in residential zoning districts, but not always agritourism related uses and businesses. This plan recommends revisiting permitted uses in the district, removing barriers that may prevent agritourism uses at nurseries and farms, and ensuring that amendments to the zoning code do not harm the potential for agritourism uses.

4.11 Community identity

Approaching Madison Township on North Ridge Road/US 20, Middle Ridge Road, or South Ridge Road, it is difficult to know exactly one has crossed the township line. The development pattern in eastern Lake County varies little from community to community; houses, former motels, nurseries, garden centers, vehicle dealers, and convenience retail scattered along arterial roads, with residential frontage development along collector roads. The town line sign provides the only evidence that a driver crossed into Madison Township.

Concerns about community identity tended to rank low in surveys both in Madison Township and other Lake County communities. The relative silence regarding community identity bucks a growing national trend of increasing concern about the homogenization of the built

environment, the decreasing influence of local culture and traditions, and a lack of rootedness and emotional attachment to a place.

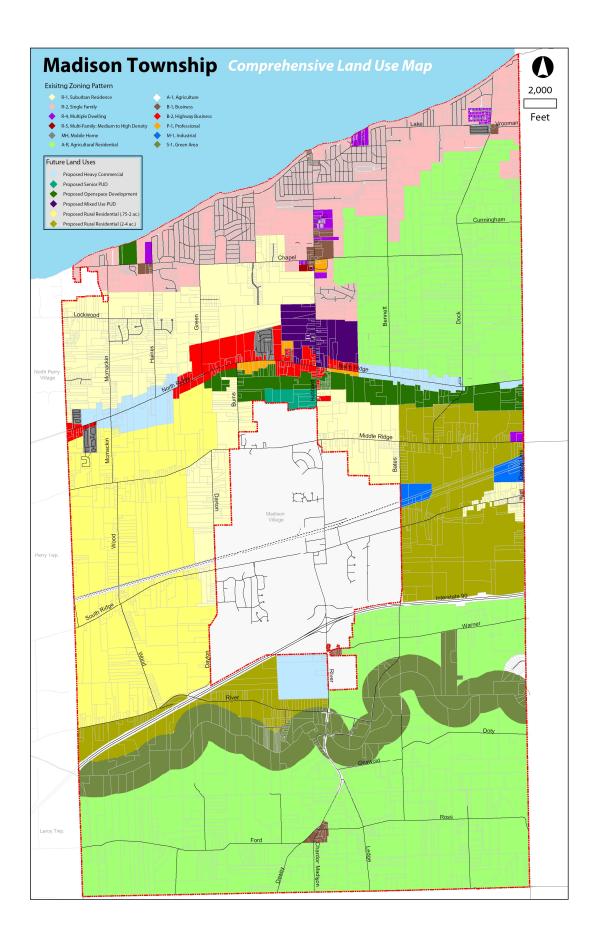
Many of the recommendations made in this plan, if implemented, will over time result in a physical environment, and development pattern that will clearly distinguish Madison Township from its neighbors.

This plan also recommends basic community branding to help reinforce a distinct identity, identify and market both Madison Township and Madison Village together, much like a product. Distinctive and tasteful welcome signs – not a metal highway sign – should greet drivers crossing township and village boundaries. Street name signs should also break from the mold of a standard green rectangular metal sign. Display of public art that reflects local culture and customs should be considered at gateways and strategic intersections.

4.12 Future land use map

The future land use map is to establish the framework for future development as a general, conceptual guide. The map identifies in general terms the various types of land uses and their respective locations throughout Madison Township, as based on the aspirations of the comprehensive plan. It bridges the gap between existing and future development to guide new projects so they may better blend into and preserve the fabric of the township.

The future land use map is considered a guide for zoning and future development in the township, and should be closely adhered to. However, each proposed development should be judged upon its merit and compatibility with surrounding land uses as well as other goals and policies set by this plan.



4.13 Goals and policies

Each primary paragraph (in **bold type**) is a statement of a goal. The subparagraphs are policies for implementing the goal. Some goals and policies related to land use are found in other elements. The future land use map, which display recommended land use/zoning patterns, is an integral part of these goals and policies.

LU-1	Contemporary, effective land use planning tools will be used to preserve the semi-rural character of Madison Township.	
LU-1-p1	Rewrite and adopt a new zoning resolution, written in plain, clear English and making extensive use of illustration and tables, to help implement the goals and policies of the 2008 Madison Township Comprehensive Plan.	
LU-1-p2	Review the comprehensive plan and zoning resolution annually, to keep ahead of emerging land use trends in the region and nation.	
LU-1-p3	Consider converting the existing planned unit development (PUD) zoning process as a zoning district change through the Township Zoning Commission and Trustees.	
LU-1-p4	Convert use of business and industrial classification systems for land use classification in the zoning resolution.	
LU-1-p5	Create two new residential zones with larger lot size and frontage requirements in the central and southern portions of the Townships.	
LU-1-p6	Create an Open Space Development zone along sensitive natural areas in the Township (Arcola Creek).	
LU-1-p7	Create a mixed use PUD near the Hubbard Road corridor north of North Ridge Rd.	
LU-2	Residential development will be in a form that reinforces a unique sense of place, and make Madison Township distinct from surrounding communities.	
LU-2-p1	Consolidate the R-1 and R-2 suburban residential zoning districts into one district.	
LU-2-p2	Remove single family development as a permitted use in the R-4 district.	
LU-2-p3	Concentrate the bulk of residential development in North Madison, areas near the commercial center of the North Ridge Road/US 20 corridor, Unionville, and Madison Village. Encourage medium-density residential development, following a traditional neighborhood model, in the North Madison and Unionville areas.	
LU-2-p4	Place parks and public space in the town center area where they will front streets and create vibrant, safe gathering areas; not behind houses where they serve as virtual extensions of private rear yards.	
LU-2-p5	Increase the minimum front yard setbacks for residential lots fronting collector and arterial roads, to reduce the visual impact of future frontage development.	
LU-2-p6	Enforce zoning requirements that prohibit disruptive home occupations, such as retail uses, construction vehicle and heavy equipment storage, vehicle repair and body work, and contractor yards.	

LU-2-p7 Work closely with Madison Village when reviewing residential development that is close to the village boundary, or which may have an impact on village roads and infrastructure. LU-3 Commercial and industrial areas will be well-planned, appropriately located and sized, and encourage uses that are not disruptive or present an unflattering impression of the Township to visitors. LU-3-p1 Implement a simplified and more logical categorization of permitted commercial and industrial uses. Ensure terminology for land uses is consistent across all zoning districts and throughout the zoning code. Evaluate and amend the current semi-industrial and industrial uses in commercial LU-3-p2 zoning districts. Create a heavy commercial zone along North Ridge Roads for appropriate uses LU-3-p3 that do not fit into the existing zoning districts. LU-3-p4 Discourage additional strip commercial zoning. Limit agglomerations of commercial uses to established clusters at Madison Township Park, Hubbard Road and Chapel Road, and SR 528 and Ledge Road. (Location of commercial uses along the North Ridge Road/US 20 corridor is addressed in the US 20 corridor plan.) LU-3-p5 In concert with the Lake County Coastal Plan, establish a more active area in the area immediately surrounding Madison Township Park. LU-3-p6 Work closely with Madison Village when reviewing commercial development that is close to the village boundary, or which may have an impact on village roads and infrastructure. LU-4 Industrial areas will be well-planned, appropriately sited and sized, located in areas where they will have minimal impact on township and village infrastructure, residential areas, and encourage uses that are not disruptive or otherwise inappropriate for a semi-rural community. LU-4-p1 Locate, design and develop industrial sites and areas in a manner that reinforces a distinct sense of place, and offers a positive impression of Madison Township. LU-4-p2 Limit the acreage of industrial zoned land in the township to only the amount needed to realistically meet future demand. Acknowledge that the importance of manufacturing in Northeast Ohio is diminishing and unlikely to regain its former prominence; and that an abundance of industrial zoned property will not, by itself, draw industry to the area. LU-4-P3 Restrict industrial uses to 529/I-90 area, and an area east of Bates Road, south of Middle Ridge Road, and north of the Norfolk Southern/CSX railroad corridor. LU-4-P4 Prohibit intrusive industrial and semi-industrial uses as a permitted land use in commercial zoning districts. LU-4-p5 Remove commercial and heavy industrial uses as permitted uses in light industrial zoning districts. LU-4-P6 Work closely with Madison Village to recruit industrial businesses, and ensure that externalities have a minimal impact on the village center.

LU-5	Commercial and industrial development will be attractive, inviting, or	convenient
	and of a high quality.	

- LU-5-p1 Revise sign design requirements to contribute to a built environment that will differentiate Madison Township from adjacent municipalities, and reinforce the township's identity and semi-rural character.
- LU-5-p2 Implement architectural design requirements for commercial and industrial uses to promote quality architecture, and enhance sense of place as suburban development and growth pressure encroach further into eastern Lake County.
- LU-5-p3 Implement site planning requirements for commercial and industrial uses, to encourage and reward high quality development.
- LU-5-p4 Establish standards for landscaping and screening, to minimize the impact of new development on the surrounding neighborhood, reduce heat islands, promote a sylvan visual environment, and reinforce the identity of Madison Township as a center of the nursery industry.
- LU-5-p5 Establish controls on the direction and maximum height of lighting, and the glare from reflective materials used on the exterior of structures, to prevent glare and light pollution, enhance semi-rural character, and encourage energy conservation.

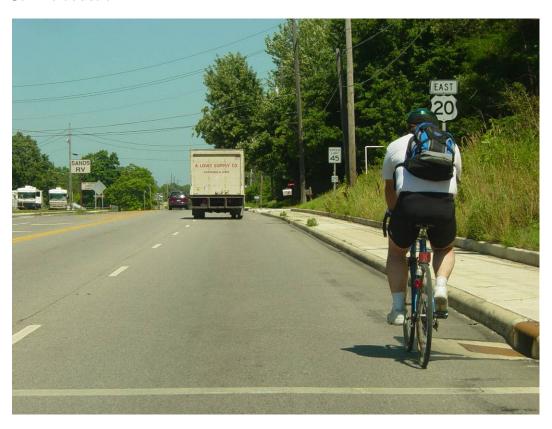
LU-6 The nursery industry and agriculture will continue to be the signature land use in Madison Township.

- LU-6-p1 Permit agritourism related businesses, such as bed and breakfast inns, tours, commercial hay rides, u-pick operations, corn mazes and the like as accessory uses to working agricultural uses, to allow such uses to remain economically viable in the face of exurban development. Ensure that zoning regulations do not restrict agritourism-related businesses.
- LU-6-p2 Encourage the participation of agricultural trade association members in town planning activities and boards.
- LU-6-p3 Encourage property owners to participate in programs such as CAUV, Conservation Easements and the Agricultural Security Area.
- LU-6-p4 Consider the agricultural potential and value of unique soils when evaluating plans for large-scale development.
- LU-6-p5 Consider impacts on existing agricultural operations as criteria for development approval, and require mitigation for any detrimental impacts. This includes considering the impact to the drainage pattern and water supply on existing agricultural operations and fallow agricultural land.
- LU-6-p6 Provide adequate buffers with development adjacent to agricultural land, to minimize conflicts and complaints concerning standard agricultural practices. Update zoning regulations to include guidelines for design elements to help achieve compatibility between agricultural and non-agricultural uses.
- LU-6-p7 Adopt a resolution establishing a "Code of the Exurbs" for Madison Township, which informs prospective new residents about the responsibilities and consequences of living in rural and exurban areas.

LU-6-p8 Work with the Lake County Soil and Water Conservation Office on a Lake County version of the State's Agricultural Security Area (ASA) program.

5 Transportation

5.1 Introduction



At a casual glance, it appears that transportation is not a critical issue in Madison Township. There is a perception that congestion is growing, but data from the Northeast Ohio Areawide Coordinating Agency (NOACA) and the Ohio Department of Transportation (ODOT) show little evidence of problems. There are no major intersections or uses that generate large amounts of traffic. Even with what appears like sparse traffic, though, Madison Township still faces challenges regarding transportation.

Traffic generated by poorly planned development, and the lack of bicycle and pedestrian accommodation, can diminish the potential quality of life in the township. A scattered, low-density population results in more roads spread among fewer homes, with property owners facing a larger tax burden for road maintenance compared to more densely populated urban and suburban areas. With limited commercial development, residents face longer vehicle trips for commuting and daily errands, resulting in extra wear and tear on roads, and added air and noise pollution. The township is not alone; other exurban communities in the area face these issues.

Transportation infrastructure is very expensive, especially for a low-density exurban area, and it has major impacts on how residents live. It both influences and is influenced by land development. Future transportation plans must consider a diverse range of users, including residents of all ages and abilities, business commuters, visitors, commercial traffic, and those traveling by foot or bicycle.

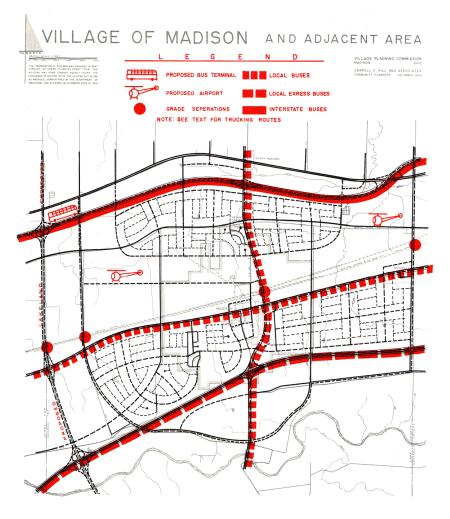
An effective transportation plan should not be measured in how it would potentially decreases travel times or increase traffic speed, but rather how it will shape future development, improve the quality of life for residents, and preserve small-town character. Madison Township is not an island, and transportation planning must consider how roads and trails in the community function as part of a regional transportation network, how traffic from the township affects Madison Village, and vice versa. The Transportation element will evaluate existing conditions, identify challenges, and present goals and policies that address current and future mobility issues in the township.

Many transportation-related issues that are specific to the North Ridge Road/US 20 corridor are addressed in the US 20 Corridor Plan.

5.2 Previous comprehensive plans

1963 COMPREHENSIVE PLAN

The 1963 Madison Village Comprehensive Plan anticipated that Madison Village – and, by extension, Madison Township – would be a much larger community than it is now. The transportation section of the plan included ambitious projects such as a bypass around the village center with a grade-separated railroad crossing, and railroad grade separation for County Line Road and Wood Road, which would be part of a beltway of arterial roads around the village. The village would be surrounded on three sides by limited-access highways. A proposed network of arterial and collector streets would cross the village and extend in all directions into Madison Township. The plan also suggested sites for an airport and intercity bus terminal, and recommended upgrading County Line Road in anticipation of commercial shipping activities at the Madison Dock.



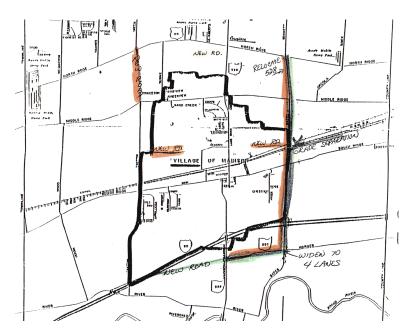
PROPOSED MAJOR TRANSPORTATION FACILITIES

Madison Village never grew to be the satellite city anticipated by the 1963 plan. None of the improvements and projects proposed in the plan were built.

1994 COMPREHENSIVE PLAN

The 1994 comprehensive plan anticipated a large increase in traffic on North Ridge Road/US 20, and recommended a marginal or frontage road south of the Madison Mall. The plan also recommended widening North Rdge Road along the entire route, and the addition of right-turn only lanes at major intersections.

The comprehensive plan recommended relocation of State Route 528 along



Warner Road to Bates Road, following Bates north across a new grade-separated overpass of the Norfolk Southern/CSX corridor. Bates Road would meet with Bennett Road at North Ridge Road/US 20. A recommended northward extension of Dayton Road would meet Green Road at North Ridge Road/US 20.

None of the recommendation dations made in the 1994 comprehensive plan were implemented.

5.3 Roads

With the exception of road paving projects and the construction of streets internal to residential subdivisions, the transportation network in Madison Township has changed little through the decades. However, increased vehicle ownership, an influx of new residents who commute to jobs outside the community, retail development to the north in Madison Township, increased interstate trucking activity, and changing lifestyles have all impacted village roads.

TRAFFIC VOLUME

On many collector roads in the township that serve local traffic, traffic volume increased between 1992 and 2006. (Map on page 5-4) Roads experiencing an increase in traffic generally had greater levels of lot split and frontage development activity. Traffic volume should be expected to increase on collector roads.

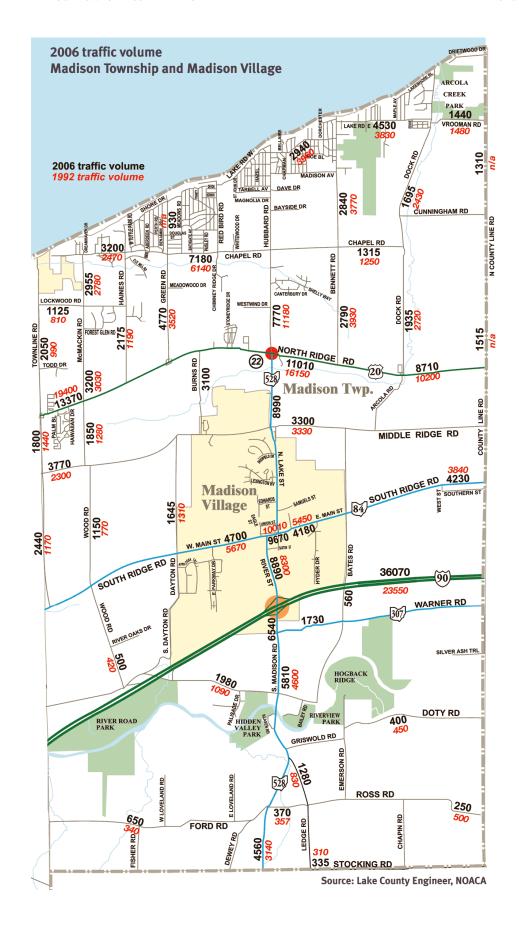


Table 5.1 shows traffic counts along selected road sections on major arterial and collector roads in the township and village, based on data collected in 1992, 1999, 2002 and 2005. Historic data from the 1963 Madison Village comprehensive plan is also included.

Data from the Ohio Department of Transportation shows traffic volume decreasing on North Ridge Road (US 20), State Road 528 north of I-90, and State Road 84, and increasing on State Road 528 south of I-90, Warner Road, and Interstate 90 between 1992 and 2005.

Traffic on US 20 in Madison Township has decreased in recent years, while traffic on Interstate 90 is increasing. Data collected by ODOT suggests that I-90 is increasingly being used for east-west traffic that would otherwise use North Ridge Road/US 20.

Table 5.1 Traffic volume Madison Township and Village												
	Average daily traffic (ADT)											
Road section	1960	1992	1999	2002	2005	% change 1992- 2005						
North Ridge Road (US 20)												
North Ridge Rd (US 20) Townline Rd to Hubbard Rd	6,480	17,640	15,530	14,280	13,370	-24.2%						
North Ridge Rd (US 20) Hubbard Rd to Dock Rd	6,190	15,620	11,030	11,280	11,010	-29.5%						
North Ridge Rd (US 20) Dock Rd to County Line Rd	n/a	10,150	9,510	9,360	8,710	-14.2%						
South Ridge Road, Main Street (OH 84)												
South Ridge Rd (OH 84) Townline Rd to Dayton Rd	2,030	4,960	4,280	4,320	4,130	-16.7%						
Main St (OH 84) Dayton Rd to River St (OH 528)	2,850	5,670	5,980	4,130	4,700	-17.1%						
Main St (OH 84) River St to Lake St (OH 528)	4,160	10,010	8,160	9,800	9,670	-3.4%						
Main St (OH 84) Lake St (OH 528) to Bates Road	2,120	5,450	4,080	4,810	4,180	-23.3%						
South Ridge Rd (OH 84) Bates Road to County Line Rd	1,340	3,840	4,010	4,250	4,230	10.2%						
Warner Road (OH 307)												
Warner Rd (OH 307) east of River St (OH 528)	460	1,390	1,220	3,050	1,730	24.5%						
Hubbard Road, Lake Street, River Street, South Madison	Road (C)H 528)										
Hubbard Rd (OH 528) North Ridge Rd to Middle Ridge Rd	3,470	10,360	9,090	9,110	8,990	-13.2%						
Lake St/River St (OH 528) Middle Ridge Rd of Main St (OH 84)	3,850	10,030	9,090	9,110	8,990	-10.4%						
Lake St/River St (OH 528) Main St (OH 84) to I-90	,	,	9,090	•		-10.4%						
River St (OH 528) I-90 to Warner Rd	1,850	5,310	5,840	6,180	6,540	23.2%						
South Madison Rd (OH 528) Warner Rd to Ledge Rd	1,190	4,190	5,760	6,070	5,810	38.7%						
South Madison Rd (OH 528) Ledge Rd to Stocking Rd	n/a	3,140	3,950	4,540	4,560	45.2%						
Interstate 90												
I-90 west of River St (OH 528)	5,320	27,040	32,910	33,270	38,970	44.1%						
I-90 east of River St (OH 528)	5,620	24,280	33,040	31,340	36,070	48.6%						
Italics: road sections in Madison Village (Ohio Department of Transportation)												

Between 1992 and 2005 there was little change in the percentage of heavy truck traffic (Class B and C) on most roads in the township where traffic counts were conducted. Class B and C vehicle traffic on South Madison Rd/OH 528 between Warner Road and Ledge Road increased from 5.7% to 8.2%. Despite the shift of traffic from North Ridge Road/US 20 to Interstate 90, there was almost no change in the percentage of heavy truck traffic on North Ridge Road/US 20 between 1992 and 2005.

During the same time, on the majority of roads in the village where traffic counts were conducted, the percentage of heavy truck traffic increased. (Table 5.2). The largest increases were recorded on River Street south of Interstate 90, and Main Street west of River Street/OH 528.

Average	daile tuaffia	(ADT). Class	D and C
_			
1992	% 1992	2005	% 2005
//10	2.20/	24.0	2.20/
			2.3%
			3.1%
430	4.2%	360	4.1%
	,,,,		2.9%
			6.6%
	2.2		3.9%
80	1.5%	130	3.1%
160	4.2%	180	4.3%
70	5.0%	100	5.7%
on Road (OH	528)		
360	3.5%	400	4.4%
360	3.5%	400	4.4%
430	5.7%	500	5.6%
340	6.4%	460	7.0%
240	5.7%	480	8.2%
170	5.4%	240	5.3%
7,440	2.8%	10,530	3.7%
7,350	3.0%	10,520	3.4%
	1992 410 480 430 200 240 390 80 160 70 on Road (OH 360 430 340 240 170 7,440	1992 % 1992 410 2.3% 480 3.1% 430 4.2% 200 4.0% 240 4.2% 390 3.9% 80 1.5% 160 4.2% 70 5.0% 0n Road (OH 528) 360 3.5% 430 5.7% 340 6.4% 240 5.7% 170 5.4% 7,440 2.8%	410 2.3% 310 480 3.1% 340 430 4.2% 360 200 4.0% 120 240 4.2% 310 390 3.9% 380 80 1.5% 130 160 4.2% 180 70 5.0% 100 on Road (OH 528) 360 3.5% 400 430 5.7% 500 340 6.4% 460 240 5.7% 480 170 5.4% 240 7,440 2.8% 10,530

RAILROAD GRADE CROSSINGS

(Ohio Department of Transportation)

Since the construction of the Cleveland, Painesville and Ashtabula Railroad in 1851, Madison Township has been bisected by a busy railroad corridor. The two-track CSX Erie West Subdivision and single-track Norfolk Southern Lake Erie District lines cross Wood Road, Dayton Road, Lake Street, Bates Road, and County Line Road at grade.

116 scheduled trains per day – an average of one every twelve minutes – pass through the township and village. (Table 5.3) Railroad traffic is expected to increase as global trade and the use of intermodal (travel trailer to train) shipping continues to grow.

The noise and vibration caused by heavy rail traffic could make increased residential development in some areas near the rail corridor impractical.



Table 5.3 Railroad crossings Madison Township and Vil	llage													
Street AARDOT Warning devices Through trains														
Street	AAKDUI	Crossbucks	Lights	Gates	Day	Switching	Night	ADT						
Wood Road/LC 43 (NS)	472023J	4	4	2	11	0	11	1,150						
Wood Road/LC 43 (CSX)	523821A	4	4	2	47	8	11	* 600						
Dayton Road/LC 41 (NS)	472018M	4	4	3	11	0	11	* 1,645						
Dayton Road/LC 41 (CSX)	523828X	4	4	3	47	8	38	* 890						
Lake Street/OH 528 (NS)	472017F	2	2	4	11	0	11	8,990						
Lake Street/OH 528 (CSX)	523829E	2	2	2	47	8	39	8,990						
Bates Road/LC 25 (NS)	472015S	2	2	4	11	0	11	975						
Bates Road/LC 25 (CSX)	523830Y	2	2	2	47	8	39	975						
County Line Road (NS)	472013D	2	2	2	11	0	11	2,915						
County Line Road (CSX)	n/a	n/a	n/a	n/a	47	8	38	n/a						
* Inconsistent data; per RRIS (Crossing Inf	ormation Ir	nventory. (0	Dhio Rail D	evelopmer	nt Commiss	ion)							

Between January 1978 and April 2007, there were 23 train-vehicle collisions on the three grade crossings in the village. Accidents resulted in four injuries and three deaths. (Table 5.4)

Table 5.4 Railroad crossing accidents 1978 Madison Township and Village	-present			
Street	AARDOT	Accidents	Injuries	Deaths
Dayton Road/LC 41 (NS)	472018M	7	1	1
Lake Street/OH 528 (NS)	472017F	4	1	0
Bates Road/LC 25 (NS)	472015S	1	1	0
Dayton Road/LC 41 (CSX)	523828X	4	1	1
Lake Street/OH 528 (CSX)	523829E	2	0	1
Bates Road/LC 25 (CSX)	523830Y	5	unavailable	unavailable
Wood Road/LC 43 (NS)	472023J	4	2	2
Wood Road/LC 43 (CSX)	523821A	1	0	0
County Line Road (NS)	472013D	3	1	2
County Line Road (CSX)	n/a	unavailable	unavailable	unavailable
Specific accident data for AARDOT 523830Y and the Administration)	County Line Roa	d CSX crossing is	s unavailable. (F	ederal Railroad

IMPACT OF FRONTAGE DEVELOPMENT

The normal pattern of residential development on most longer arterial and collector roads in the township is the subdivision of large but narrow lots with frontage on the existing road. Such development affects the township road system in several ways.

- The many individual driveways create points of conflict that make the road less safe for pedestrians, cyclists and drivers. (See the access management section for more details.)
- A single family house generates an average of 9.6 vehicle trips per day. Property owners at the end of arterial and collector roads closer to the village face a heavier share of traffic on the road, generated by residential frontage development at the far end of the roads.
- The land division pattern makes it difficult to create connecting north-south or east-west roads, or develop interior land, without demolishing houses.
- The cost of development shifts from the builder, who would normally be required to build roads in a subdivision, to the village, which built the existing road where the lot has frontage. The township and county essentially subsidizes frontage development.

Working with the Lake County Planning Commission and their Subdivision Regulations, the Township could help implement more flexible street design standards. For instance, allowing

narrower pavement width for streets that will serve few houses, thus decreasing the cost of developing away from existing through streets.

The plan also recommends making new residents on arterial and collector roads aware that they live on what is intended to be a through street – not a residential road – and there is no guarantee traffic volume will remain low in the future.

PERCEPTIONS OF TRAFFIC CONGESTION

There is a perception among many township residents, and those living in nearby communities, that traffic congestion is a growing problem in the area. Solutions suggested by those attending comprehensive plan committee meetings include overpasses, bypasses, and frontage roads; improvements normally seen only in heavily developed congested urban and suburban areas.

According to data from NOACA and ODOT, no roads in Madison Township are considered congested. The amount of traffic carried on four-lane North Ridge Road and two-lane Hubbard Road/Lake Street is lower than the majority equivalent roads in the region, and roughly equal to busier two lane roads in the area. Traffic volume on the roads is below capacity for lower levels of service. However, the roads are not without other issues.

Why do some residents feel traffic is congested and generally bad, when the reality is different? The rural setting of the Township may play a role in how traffic is perceived. What appears to be freeflowing traffic to an urban or suburban resident, a traffic engineer, or a planner, may be seen as congestion in the eyes of those living in eastern Lake County. In an exurban area such as eastern Lake County, residents may have the expectation that traffic will reflect their low-density, semi-rural/semi-suburban surroundings, and be scattered and light. Anything more might be perceived as "congestion", even if there are few traffic delays, because it seems out of context with an environment. Residents also spend more time in their cars than those in more densely populated areas, so they may have more exposure to traffic problems. Whether or not congestion actually exists, the perception of it affects how residents feel about their quality of life.

Building improvements such as frontage roads, bypasses and multi-lane arterials to provide relief for sporadic traffic problems risk the creation of induced demand. The addition of road capacity can spur new development, which would generate additional traffic, causing the road to become congested again.

5.4 Comprehensive plan committee desired improvements

The results of a transportation workshop held with the Madison Village/Madison Township Comprehensive Plan Committee are a "wish list" of future road improvement projects for the village and township.

RAILROAD GRADE-SEPARATED CROSSING

For several decades, a grade-separated rail crossing has been a desire of both Madison Village and Madison Township officials. The 1963 Comprehensive Plan proposed grade-separated railroad crossings for County Line Road and Wood Road, and a grade-separated crossing on a new bypass that would be routed east of Lake Street and River Street. The consensus in contemporary railway design is to avoid the use of grade-crossings. A grade-separated crossing was considered a high priority among those in the Comprehensive Plan Committee.

There are several geometric and siting issues that make a grade-separated crossing difficult in Madison.

- At Townline Road and Wood Road, low traffic volume cannot justify the expense of bridging the CSX and Norfolk Southern tracks.
- At Dayton Road, the railroad crossing is about 550 feet from Main Street, which would require a very steep grade (5% or more) to provide a 22.5 feet meter overhead clearance. Heaver vehicles would likely avoid such a steep grade in favor of existing, more accessible crossings.
- At Lake Street, the embankment necessary for a grade-separated crossing would require
 the demolition of many residential, commercial and industrial structures in the heart of
 Madison Village, and prevent access to many businesses along the road. The location is
 ideal, but the necessary property acquisition makes it impractical.
- At Bates Road, low traffic volume makes justification of the expense of grade-separation difficult. The cost of crossing at Bates Road would be much higher than at other points, because the rights-of-way of the CSX and Norfolk Southern are about 350 feet apart, requiring a longer bridge. It would also increase traffic on a road that is lined with residential frontage development.
- At County Line Road, low traffic volume, the need for a steep grade from Middle Ridge Road (6% or more), and separation of the CSX and Norfolk Southern rights-of-way make a crossing at this point impractical.

A bypass through Madison Village following the route suggested in the 1963 plan would be difficult to build today; barriers include the Fairview Cemetery, Madison Educational Campus, Huntington Woods subdivision, and Lake County Engineer Madison Garage on Samuel Street.

Continuing River St. north of Main Street in Madison Village also presents numerous barriers; commercial structures on Main Street, a small stream that flows to Arcola Creek, industrial development on Edwards Street, and a large patio home development.

The cost of grade separation projects similar to what could be built in Madison ranges from \$5 million to \$15 million.

Ohio is one of the first states in the nation to establish a successful program to



specifically address rail/highway grade separation projects. The Rail Grade Separation Program is a 10 year, \$200 million program established in 2000 by the Ohio Department of Transportation (ODOT) and the Ohio Rail Development Commission (ORDC). The program addresses safety, mobility and economic development concerns for Ohio's local communities. The Rail Grade Separation Program provided \$3.6 million for the construction of the \$13.9 million Heisley Road rail crossing in Mentor. A crossing at Lake Street would meet the program goals – more than 30 trains a day, and more than 1,000 vehicle trips per day – but the demolition and property acquisition required makes it an unattractive option.

This plan recognizes the obvious benefits of a grade-separated rail crossing – increased safety, smoother traffic flow, and uninterrupted access for emergency vehicles – and endorses a crossing where it would be practical, and where it would preserve the integrity and commercial vibrancy of the historic village center. However, geometric, siting, and financial obstacles at each potential crossing point in Madison Village and Madison Township make it

impractical to bridge the CSX and Norfolk Southern tracks. This plan recommends improving existing grade crossings, including signage, lighting, pavement markings, wayside horns, and use of barriers that prevent drivers from circumventing the gates (StopGate and similar systems), to reduce the risk of accidents and fatalities. Considering siting issues detailed previously, Bates Road is the most suitable candidate for a future grade crossing.

One advantage of frequent rail traffic and the inconvenience of at-grade crossings: it can limit through traffic by trucks, and thus provide a form of traffic calming.

LAKE STREET / HUBBARD ROAD WIDENING

Along with Interstate 90 and North Ridge Road/US 20, Lake Street is one of the heaviest traveled roads in Madison Village and Madison Township. Lake Street/Hubbard Road serves as the primary arterial connecting residential areas in North Madison with I-90, and residential areas in Madison Village and the south end of Madison Township with retail areas along North Ridge Road/US 20. The Comprehensive Plan committee expressed support for improving Lake Street to better accommodate additional traffic.

Although traffic volume on Interstate 90 has increased from the time it was dedicated, in recent years traffic volume on Lake Street actually fell; from 10,030 vehicles per day in 1992 to 8,990 in 2005. Of the 2,305 road segments cataloged in the Northeast Ohio Areawide Coordinating Agency (NOACA) Traffic Congestion System, segments of Lake Street ranks among the least congested, from 1,805 to 2,019; and its vehicle-to-capacity ratio is among the lowest in the region.

Increasing the capacity of Lake Street/Hubbard Road could affect River Street, the link between Lake Street, the Madison Village core, and I-90. River Street is an important gateway to Madison Village, and visually reinforces its "quaint" character. For much of its length between I-90 and the village center, River Street is lined with historic single-family houses. Improvements to River Street to accommodate increased traffic could harm its unique visual qualities and residential nature.

R.W. PARKWAY EXTENSION

R.W. Parkway, a new addition to the Madison Village street grid, is intended to provide access to properties adjacent to I-90 near River Street/OH 528, and promote the development of commercial, industrial and service uses near the Interstate exit. The Comprehensive Plan committee supported extending Water Tower Drive from River Street/OH 84 east to Bates Road.

Greater connectivity promotes mobility and reduces congestion by providing multiple routes of travel. Connecting the eastern end of Water Tower Drive to Bates Road would improve connectivity, and provide better access to businesses. The perceived shortcomings of extending R.W. Parkway- traffic may increase slightly on Bates Road, and decrease slightly on Main Street in the village center – are outweighed by the benefits of increased connectivity.

SECOND INTERSTATE 90 EXIT

Some members of the Comprehensive Plan Committee were enthusiastic about an additional exit on Interstate 90 in Madison Township, either in the vicinity of Wood Road/River Road, at Bates Road, or at County Line Road. Justification of a second exit ranged from promotion of economic development to homeland security.

As with a grade-separated railroad crossing, there are many physical, geometric, economic and political barriers that would make such a project difficult to build.

 Extension of Townline Road south to I-90 would require a multimillion dollar high level bridge crossing the Grand River gorge to access areas to the south. The new road would intrude onto the River Road Metropark

Federal Highway Administration (FWHA) policy for additional interchanges onto Interstate Highways

It is in the national interest to maintain the Interstate System to provide the highest level of service in terms of safety and mobility. Adequate control of access is critical to providing such service. Therefore, new or revised access points to the existing Interstate System should meet the following requirements:

- 1. The existing interchanges and/or local roads and streets in the corridor can neither provide the necessary access nor be improved to satisfactorily accommodate the design-year traffic demands while at the same time providing the access intended by the proposal.
- 2. All reasonable alternatives for design options, location and transportation system management type improvements (such as ramp metering, mass transit, and HOV facilities) have been assessed and provided for if currently justified, or provisions are included for accommodating such facilities if a future need is identified.
- 3. The proposed access point does not have a significant adverse impact on the safety and operation of the Interstate facility based on an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include an analysis of sections of Interstate to and including at least the first adjacent existing or proposed interchange on either side. Crossroads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access points.
- 4. The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" for special purpose access for transit vehicles, for HOV's, or into park and ride lots may be considered on a case-by-case basis. The proposed access will be designed to meet or exceed current standards for Federal-aid projects on the Interstate System.
- 5. The proposal considers and is consistent with local and regional land use and transportation plans. Prior to final approval, all requests for new or revised access must be consistent with the metropolitan and/or statewide transportation plan, as appropriate, the applicable provisions of 23 CFR part 450 and the transportation conformity requirements of 40 CFR parts 51 and 93.
- 6. In areas where the potential exists for future multiple interchange additions, all requests for new or revised access are supported by a comprehensive Interstate network study with recommendations that address all proposed and desired access within the context of a long-term plan.
- 7. The request for a new or revised access generated by new or expanded development demonstrates appropriate coordination between the development and related or otherwise required transportation system improvements.
- 8. The request for new or revised access contains information relative to the planning requirements and the status of the environmental processing of the proposal.

property. The terrain of surrounding land is not amenable to industrial or commercial development. The exit location would conflict with the Leroy Township comprehensive

- plan, which recommends limited development and accessibility at the eastern end of the township.
- Extension of Wood Road south to I-90, as with Townline Road, would require an expensive high level bridge across the Grand River. The road would intrude onto the River Road Metropark and Camp Stony Glen property. River Road is very close to I-90 where it meets Wood Road, and building an exit from and entrance to the westbound lanes of I-90 would require a massive realignment of River Road to the north.
- An exit at River Road would be nearly impossible to build, because of the angle at which it crosses I-90, and the nearby presence of the intersection with Dayton Road.
- An exit at Bates Road would be less than one mile from the existing exit at River Street (OH 528); closer than even the recommended minimum spacing for Interstate exits in urban areas.
- County Line Road is a dirt road south of South Ridge Road.

All the suggested locations, except Townline Road, are less than three miles from the current exit at River Street. Interstate Highway standards recommend minimum spacing of three miles between exits in rural areas.

Traffic generated by additional exits would be disruptive to residents along affected roads, and exacerbate urban sprawl in the region by opening land located away from utility lines, schools, and retail centers, much of it with established agricultural uses, to development. Much of that development would likely be frontage subdivision.

A second exit may also "dilute" the already limited market for commercial and industrial sites near the current River Road/OH 528 exit in Madison Village. There is also a surplus of commercial and industrial zoned land in Madison Village and Madison Township. The addition of more commercial and industrial zoned land could further depress land values, and harm efforts by the village to develop the area near Water Tower Drive and the existing Interstate 90 exit.

What is access management?

Access management is a group of strategies, tools, and techniques that work to improve the safety and efficiency of roads – not by adding lanes but by controlling where vehicles can enter, leave and cross a road.

For example, consider a commercial strip that has developed over several decades along both sides of a four lane road. Without access management, the businesses with frontage on the road would all have individual curb cuts for their driveways that let drivers get into their often small parking lot. People trying to pull off the street would slow traffic behind them, and if turning left across the oncoming traffic lane, a number of risks arise.

- To cars in the oncoming lane, or cars slowing behind the turning vehicle, who risk accidents.
- To pedestrians trying to walk along the road, at risk when they cross a driveway.
- To bicyclists riding along the shoulder, facing risk as traffic behind the turning vehicle try to use the shoulder to get around the bottleneck.



(Access Management Guidebook, Humstone and Campoli, 1996)

Multiply this by 100 businesses, and there can be a real mess. Safety would be highly compromised, and the resulting traffic snarls frustrate shoppers and commuters alike. The many driveways also reduce the space that could be devoted to landscaping, making the area less attractive. Everyone loses: businesses, residents, and travelers.

This is the situation today along US 20 in eastern Lake County.

Access management is one solution to this problem. It helps residential developers build safer neighborhoods. It offers ways to group businesses, their customer access, and their parking lots together, reducing costs and maximizing efficiency. It facilitates left turning without slowing traffic or compromising safety. It makes roads safer and more inviting for drivers, pedestrians, and cyclists. It also increases traffic capacity, without having to spend millions to add lanes or build frontage roads.

The limited benefits provided by a second exit are far outweighed by its economic, social and environmental costs. This plan does not recommend any additional exits on I-90 in Madison Township or Madison Village.

EAST – WEST CONNECTOR

Previous township plans have consistently identified a east – west arterial connector on the south side of North Ridge Rd. This location has severe environmental constraints due to the Arcola Creek riparian corridor. This plan recommends relocating the proposed road to the north side of Route 20 connected Haines Road to Hubbard Rd. The First Energy high tension line corridor area would be an ideal location. Fewer natural obstacles and the deep commercial zoning depths along North Ridge Road make this a more feasible alternative, if needed.

BATES ROAD AND DAYTON ROAD EXTENSIONS

The 1994 comprehensive plan recommended the extension of Bates Road north past its current terminus at Middle Ridge Road, to connect with North Ridge Road/US 20 at the intersection with Bennett Road. The plan also recommends extension of Dayton Road north past Middle Ridge Road, to connect with North Ridge Road/US 20 at Green Road.



Madison Township has several roads that cross the township east to west, but only State Route 528 (Hubbard Road, Lake Street, River Road, South Madison Road) crosses the township north to south, interrupted only by a one-block jog at Main Street in Madison Village. Additional north-south connections in the township can provide alternate routes of travel to area residents, and provide relief to traffic on State Route 528.

There can be many shortcomings with new roads, however. The extension of Bates and Dayton will provide access to the interior of agricultural parcels, resulting in increased conversion of farms and nurseries to residential use. With no change in the underlying zoning or subdivision regulations, frontage development will continue onto the new roads; development that is subsidized by the county or township if they fund road construction.

This plan recommends the extension Bates Road and Dayton Road from Middle Ridge Road to North Ridge Road/US 20. However, the extensions should be built by private developers, in conjunction with subdivision activity or a larger planned community. Bates Road and Dayton Road should not be extended with the intent of promoting speculative development. Bates Road and Dayton Road should be extended only when a portion of State Route 528 north of Madison Village is declared congested by the NOACA congestion management system. Lot splits, subdivision or development that is sited or planned in a manner that would prevent the extension of Bates Road and Dayton Road must not be permitted.

DOCK ROAD/ARCOLA ROAD CONNECTION

Dock Road and Arcola Road by approximately 30 feet where they meet North Ridge Road. While traffic counts are relatively low on both north – south roads, future plans should consider realignment. This would require the demolition of one structure at the Arcola Road / North Ridge Road intersection.

WOOD ROAD/McMACKIN ROAD CONNECTION

Wood Road and McMackin Road are offset by about 300 feet where they meet Middle Ridge Road. The comprehensive plan committee suggested realigning either Wood Road or McMackin Road so the roads connect at an intersection on Middle Ridge.

Traffic volume on both Wood Road and McMackin Road is low, but growing. In 2006, the traffic volume on Wood Road is 1150 vehicles per day, up from 770 in 1992. On McMackin Road, traffic volume is 1850 vehicles per day, up from 1280 in 1992.

Realigning McMackin Road would require the demolition of one house on Middle Ridge Road. Realigning Wood Road would not require the demolition of any residences, but may place houses very close to the right-of-way of the realigned road. Realignment of either road may remove some agricultural land from production.

This plan recommends the realignment of Wood Road to meet McMackin Road at Middle Ridge Road only when traffic volume and safety warrant the improvement.





5.5 Access management

Businesses along most arterial and collector roads in Madison Township usually have unfettered access to the road. Businesses often have two or more driveways or curb cuts from the street to provide access. Many businesses along the road have continuous curb cuts, where the pavement of a business parking lot will meet the road surface along the entire frontage, with no landscape buffer or physical barrier separating them. This causes the street, parking lot, and sidewalk to bleed together as a mass of pavement. Continuous curb cuts create a very unsafe pedestrian environment, because vehicles can cross a pedestrian path



Poor access management: continuous curb cut

anywhere. Continuous curb cuts make it difficult for a driver to find the correct entrance to a business. They also increase stormwater runoff and eliminate any visual buffer between the street and a building. Many access problems are the result of subdivision, zoning and site planning requirements and practices in the past.

Houses on lots fronting on long collector roads usually have their own driveways. The proliferation of driveways is a result of the land division pattern in the Township; narrow lots fronting on collector roads are split off from larger lots. Over time, this development pattern results in a row of houses (and driveways) along a road, behind which is the large undeveloped portion of the original lot. As in commercial areas, the large amount of driveways accessing collector roads can be a safety issue, to both drivers and pedestrians.

With the exception of State guidelines, Madison Township now has no access management policy or requirements. Access management is a process for providing access to land development, while preserving traffic flow on surrounding roadways in terms of safety, capacity, and speed. This is done by managing location, design and operation of driveways,

median openings, and street connections along a road. It also includes use of dedicated turn lanes or bypass lanes, to keep turning vehicles from blocking through traffic.

Access management is used to improve vehicular and pedestrian safety, maintain road capacity and reduce congestion, and enhance community character and aesthetics.

By maintaining the capacity and level of service of the road, access management protects the substantial public investment in transportation, and reduces the need for expensive improvements. Studies conducted in Florida and Colorado suggest that poor spacing, design, and location of driveways lower average travel speed, and improvements in access management can increase roadway capacity. Research has also shown that access management helps reduce the rate and severity of traffic accidents. Good definition and spacing of driveways also improves pedestrian and bicycle safety, by reducing the potential for conflicts with turning vehicles.

From a land development perspective, access management requirements further the orderly layout and use of land. The quality of site access is also important to the success of a development project. The Urban Land Institute Shopping Center Development Handbook warns that poorly designed entrances and exits not only present a traffic hazard, but also cause congestion that can create a poor image of the center. Reducing the number and frequency of driveways and median openings also improves the appearance of major corridors. More land is freed for landscaping, the visual dominance of paved areas is reduced, and scenic or environmental features can be protected. Access management requires coordination of land use and transportation objectives. The Township can work with Lake County to examine the feasibility of access management regulation in Madison. Access management techniques usually include the following:

- Regulation of driveway spacing, corner clearance, and sight distance.
- Increased minimum lot frontage and setback requirements along thoroughfares.
- Restriction on the number of driveways for existing lots, and consolidating access wherever possible.
- Requirements for driveway design elements and conditions requiring their use.
- Requiring internal connections, unified circulation and parking plans between adjacent properties.
- Treating properties under the same ownership and those developed as a unified project as one property for the purpose of access control.
- Using frontage and rearage roads to serve as a common access drive for properties along a corridor.
- Restriction of flag lots and regulate private roads and access easements.
- Minimizing commercial strip zoning and promote mixed use and flexible zoning.
- Minimizing casual lot splits to prevent access and right-of-way problems.

DRIVEWAY LOCATION AND DESIGN

Driveway location and design affects the ability of a driver to safely and easily enter and exit a site. If not properly placed, exiting vehicles may be unable to see oncoming vehicles and motorists on the Redundant driveways along Township roads add points of conflict that make traffic patterns unpredictable, increase the risk of accidents, and contribute to traffic delays. If the turning radius and width are very wide, fast maneuvers on and off the site pose safety hazards for pedestrians, bicycles, and vehicles. Without an adequate throat or stacking lane, vehicles may block traffic while waiting to enter a site, or block parking rows while waiting to

Driveway location and design can be regulated by amending parking lot design standards in the zoning code.

DRIVEWAY NUMBER AND SPACING

There are too many driveways that access North Ridge Road/US 20, Hubbard Road/OH 528, and other arterial and collector roads in the township. Driveways are often too close together. Decreasing the number of driveways and increasing their spacing can increase safety and traffic flow.

Many businesses along North Ridge Road/US 20, Hubbard Road/OH 528, Main Street/OH 84 and River Street/OH 528 have two or more driveways. Business owners sometimes believe multiple driveways offer easier, more convenient access to potential customers. However, they increase the number of conflict points along the road, and reduce the spacing between driveways. Redundant driveways increase points where traffic can back up and accidents can occur.

Reasonable spacing between driveways is also important to the safety and capacity of a road, and the appearance of a corridor. Managing driveway spacing is essential on roads intended for higher speeds, such as North Ridge Road. At higher speeds drivers have less time and distance to react to unexpected situations. In most access management regulations, the minimum distance between driveways increases, based on the classification, design speed, and traffic volume of the road.

Driveway number and spacing for commercial should be regulated by the zoning code parking area standards. Required shared access, discussed later in this section, can also help fix problems with closely spaced and redundant driveways.

Encouraging common driveways for residential uses can reduce the number of access points on collector roads and arterials. It can also protect the semi-rural character of developing areas by making development further from a main road possible, thus reducing visual impact on the roadscape. This also has the effect of making building sites more private. Lots can be platted with more flexibly, and "bowling alley" frontage lots can be avoided, resulting in larger side yards and increased spacing between houses.

A common drive can either be permanent access easements or tracts dedicated for use as private roads. Ohio state law gives developers the right to build private streets. State law does not prohibit access easements. Covenants address maintenance of shared driveways; grading, plowing, patching and so on, along with fees.

CORNER CLEARANCE

Corner clearance is the distance from an intersection to the nearest driveway. Corner clearance standards, and restrictions on driveways in acceleration, deceleration and right turn lanes, preserve good traffic operations at intersections, and the safety and convenience of access to corner properties. Having a larger minimum lot size requirement for corner lots will protect the development potential and market value of corner properties. It will also help assure that these properties do not experience access problems as traffic volumes grow.

JOINT AND CROSS ACCESS

Few businesses have shared or cross-access driveways. Their use can reduce the number of driveways accessing the road, and also cut the amount of short vehicle trips on the road.

Joint and cross access involves connecting neighboring properties, and consolidating driveways serving more than one property. This allows vehicles to circulate between adjacent businesses without having to re-enter the road. Joint access is also used to connect major developments, reduce the number of driveways, and increase driveway spacing where highway frontage has been subdivided into small lots. This allows more intensive

development of a corridor, while maintaining traffic operations and safe and convenient access to businesses.

In many communities, larger parcels are often developed as a unified site, with joint and cross access planned from the start, even if the site will be subdivided into several commercial lots. In Madison Township, land along collector arterial roads is often subdivided and developed incrementally over a long period, with no unified plan for a site. Each of the resulting lots is developed individually, with no coordination of access.

One way that joint access can be implemented is by prohibiting direct access to an arterial or collector road from outparcels and lots that are carved from larger lots. Instead, the owner of the original parcel must provide access rights from the old lot to the new. If the original host lot is not immediately developed, the developer of the newer lot may be allowed a temporary driveway, which would be closed when the original lot is developed. The easement or access agreement is recorded with the property records, along with a joint maintenance agreement, and an agreement to close the temporary driveway when the joint access system is complete. As an alternative, property owners can also be required to create a binding joint access and cross easement plan before subdividing their property.

For new development on new and existing lots, access rights and stub-out drive aisles to adjacent parcels would be required by zoning resolution parking requirements, along with the appropriate access easements and/or agreements. For lots that are developed, creating stub-out driveways and recording access easements and/or agreements would be required if the business or use on the property changed, or as a condition of a building permit for major expansion or renovation.

Because access is shared, it will also be easier to share parking areas. The zoning code should be amended to allow reduced a lower number of parking spaces for a use if access is shared.

MEDIANS

There are no medians along any roads in the Township. Medians can control the location and reduce the number of left-hand turn points, and eliminate congestion caused by stopped cars turning from the passing lane.

Raised or grassy medians in the center of a road separate opposing lanes of traffic and restrict turning and crossing movements. Studies from around the nation show that roads with raised medians are safer than those with undivided thoroughfares or center two-way left turn lanes, where traffic is far less predictable, and left hand turns can create accident- and congestion-prone conflict points.

As with driveways, the spacing and design of median openings is important to the safe and efficient operation of the road. Safety benefits are reduced where median openings have inadequate storage – the length of the stacking area for cars waiting to turn – or are too close together, increasing the number of conflict points.

Medians also provide a refuge for pedestrians and bicyclists crossing a road, and can provide visual appeal and relief if they are landscaped. Considering the importance of the nursery industry in the Township, landscaped medians can help reinforce a unique "sense of place" by showcasing the products of area nurseries. Some communities have "adopt-a-median" programs, where a small sponsorship sign is displayed to identify a business or group that paid to landscape and maintain a stretch of median.

When Hubbard Road/Lake Street/OH 528 is upgraded, this plan recommends using a landscaped median instead of a continuous center turn lane to divide opposing lanes of traffic.

POSSIBLE BUSINESS CONCERNS

Businesspeople may object to access management because they believe it makes access less convenient for impulse customers and delivery vehicles. However, it has no effect on the demand for products and services they offer. Studies show access management generally does not harm local businesses.

Local businesses that depend upon drive-by traffic may raise concerns that their patronage will be hurt by medians and driveway limitations. Others may claim they will be affected because customers and delivery vehicles will find it less convenient turning into a dedicated driveway, rather than just pulling off the road into a parking lot with a continuous curb cut.

Several studies were conducted in the 1990s to find the potential economic effects of access management. Most studies have focused on business owner perceptions of impacts, before and after case examples, or generalized comparisons of business activity across corridors.

The Texas Department of Transportation conducted a study of the economic impacts of left-turn restrictions in the mid-1990s. Key findings included the following:

- Perceptions of business owners before a median was installed were more pessimistic than what usually happened.
- Business owners reported no change in pass-by traffic after median installations.
- Most business types (including specialty retail, fast-food restaurants and sit-down restaurants) reported increases in numbers of customers per day and gross sales, except for gas stations and auto repair shops, which reported decreases in the numbers of customers per day and gross sales.
- Most adverse economic impacts were realized during the construction phase of the median installations.
- Employment within the corridors experienced upward trends overall, with some exceptions during construction phases.
- When asked what factors were important to attracting customers, business owners generally ranked "accessibility to store" lower than customer service, product quality and product price, and ahead of store hours and distance to travel.
- About 94% of business owners reported that their regular customers were at least as likely or more likely to continue patronizing their business after the median installation.
- Along corridors where property values were studied, the vast majority of land values stayed the same or increased, with very few exceptions.

Iowa State University conducted a statewide study of the effects of access management on business vitality in 1996. Results showed that:

- Corridors with completed access management projects performed better in terms of retail sales than the surrounding communities. Business failure rates along access managed corridors were at or below the statewide average for Iowa. Although this suggests that access management projects generally did not have an adverse effect on the majority of businesses, some businesses may have been negatively impacted.
- 80% of businesses surveyed along access managed corridors reported sales at least as
 high after the project was in place. Relatively few businesses reported sales declines
 associated with the access management project, although these business owners felt that
 they were hurt by the project. The firms perceiving negative impacts were a mixture of
 business types.
- Similarly, about 80% of businesses reported no customer complaints about access to their businesses after project completion. Those businesses that tended to report most complaints were highly oriented toward automobile traffic.

• In all cases, 90% to 100% of motorists surveyed had a favorable opinion of improvements made to roadways that involve access management. The vast majority of motorists thought that the improved roadways were safer and that traffic flow had improved.

Although several studies assessed the potential economic damage from access management, none have examined the potential long-term economic benefits.

Poorly designed access not only hurts the character and efficiency of a corridor, but also its economic vitality over time. Property values that have increased rapidly during commercial development tend to decline after the area is built out, if the character and efficiency of the corridor is hurt in the process. The result is a pattern of disinvestment as successful businesses choose other, higher quality locations. (Studies compiled in Economic Impacts of Access Management, Kristine M. Williams, AICP, Center for Urban Transportation Research, University of South Florida, 2000.)

5.6 Public transportation

Laketran, the public transit agency serving Lake County, operates a Dial-a-Ride service. The service offers door-to-door, assisted transportation for all Lake County residents, including those in Madison Township. Dial-a-Ride picks up users at their homes, and drops them off at work, medical appointments, or any other destination in Lake County. It also provides transportation to medical appointments at Euclid Hospital, University Hospital's Euclid Health Center, Euclid Medical Plaza, Richmond Medical Center, University Hospitals and Cleveland Clinic in Cuyahoga County.

Dial-a-Ride is not intended for regular commuters, but rather for senior citizens and the physically disabled. It can be used as temporary transportation for those whose vehicles have broken down.

Laketran route 4 (Painesville-Madison) operates on North Ridge Road/US 20 through Madison Township, terminating in North Madison. Service is sparse, with three westbound buses and two eastbound buses on weekdays only. Route 11 provides commuter service to Lakeland Community College



and downtown Cleveland from a large, lushly landscaped park-and-ride facility on Water Tower Drive in Madison Village. There are two buses in each direction on weekdays, and no weekend service. The Laketran Transit Plan shows no plans to extend fixed route bus lines into the Township. The low population density and scattered development makes fixed route public transit service impractical and very costly. Buses that could serve Madison Township would find heavier use on an existing or new route in a more urbanized part of the Laketran service area. Service may be feasible if a route is connected to Madison Village to service the senior center, YMCA, post office and downtown business area.

5.7 Goals and policies

Each primary paragraph (in bold type) is a statement of a goal. The subparagraphs are policies for implementing the goal. Some goals and policies related to land use are found in other elements.

Each primary paragraph (in **bold type**) is a statement of a goal. The subparagraphs are policies for implementing the goal. Transportation-related policies related to the North Ridge Road/US 20 corridor are found in the US 20 Corridor Plan.

TR-1 The transportation network should reflect the desired character of the area where it is built.

- TR-1-p1 Continue gradual improvement of roads in the township. Improvements to collector and local roads should be performed to benefit area residents, not to encourage through traffic from outside the community, or promote land development.
- TR-1-p2 Connect the eastern end of R.W. Parkway to Bates Road.
- TR-1-P3 Extend Bates Road from Middle Ridge Road to North Ridge Road/US 20, where it will meet Bennett Road. Require developers to build sections of an extended Bates Road in conjunction with subdivision activity or a larger planned community along its planned route. Bates Road should be extended only when a portion of State Route 528 north of Madison Village is declared congested by the NOACA congestion management system.
- TR-1-P4 Extend Dayton Road from Middle Ridge Road to North Ridge Road/US 20, where it will meet Green Road. Require developers to build sections of an extended Dayton Road in conjunction with subdivision activity or a larger planned community along its planned route. Dayton Road should be extended only when a portion of State Route 528 north of Madison Village is declared congested by the NOACA congestion management system.
- TR-1-P4 Create east west connector parallel to Route 20 on the north side in between Green Road and Hubbard.
- TR-1-p5 Realign Wood Road to meet McMackin Road at Middle Ridge Road when traffic volume and safety issues warrant the improvement.
- TR-1-p6 Realign Arcola Road to meet Dock Road at North Ridge Road when traffic volume and safety issues warrant the improvement.
- TR-1-P7 Require developers and subdividers to dedicate right-of-way and construct portions of proposed collector roads and extensions that cross or touch their property.
- TR-1-P8 Prohibit lot division or development that would prevent the planned extension of a collector or arterial road past its terminus.
- TR-1-P9 Discourage public funding of road extensions where the intent includes promotion of speculative development or conversion of productive agricultural land to residential use.

- TR-1-P10 Consider the use of roundabouts as an alternative to traffic signals and four-way stops on collector and arterial roads (excluding North Ridge Road/US 20).
- TR-1-p11 Maintain low design speeds along collector roads when they are reconstructed, to reduce effects of increased traffic. Control speed through non-vertical traffic calming techniques, such as increased tree cover over a road, roundabouts, curbline projection, and varying the path of the travel surface in the right-of-way

TR-2 Access management will be used to control and limit access to roads in the township.

- TR-2-p1 Work with the Lake County Engineer and Planning Commission in creating and implementing an access management policy. Requirements should include prohibition of continuous curb cuts, spacing of curb cuts along a road and from intersections, limiting number of curb cuts on a road based on lot width and use intensity, limiting driveway width, reducing conflicts between pedestrians and access drives, required shared driveways where feasible, requiring connections between parking lots on adjacent properties, internal access to outparcels, and eventual retrofitting and elimination of continuous and nonconforming curb cuts.
- TR-2-p2 Permit shared access driveways and private roads for residential development and uses. Access management requirements for residential areas should also control spacing of driveways along a road, and dimensional, geometry and maintenance standards for private roads.
- TR-2-p3 Consider increasing the minimum lot frontage for residential lots fronting on arterial and collector streets, and establishing a lot width-to-depth ratio.

TR-3 Transportation networks will accommodate pedestrians and non-motorized transportation.

- TR-3-p1 Accommodate bicycles by including clearly marked lanes on new and reconstructed collector and arterial roads.
- TR-3-p2 Respect the right of pedestrians and bicyclists to safely share roads with motor vehicles.

TR-4 Public transportation will remain an option for township residents.

- TR-4-p1 Work with Laketran to ensure Dial-A-Ride and commuter bus service continues to provide quality service in the township. Promote Dial-A-Ride as a transportation option for senior citizens and the mobility-impaired.
- TR-4-p2 Examine the feasibility of a Madison Circulator as retail development continue in the Village and Township.

6 Housing

6.1 Introduction

Even as the population of the Cleveland area has leveled off, the number of people living in Madison Township has increased gradually since World War II. As the popularity of exurban living continues to grow, so will the number of new residents in the township. With growth comes certain community needs, including housing.

As of 2000, the US Census Bureau estimates the population of Madison Township (excluding Madison Village) at 15,494 residents, living in 6,347 housing units. At the end of 2005, there is an estimated 6,797 housing units in the township. The bulk are located either in the older North Madison area, or on narrow, long lots divided with minimal review from larger farm parcels, fronting arterial roads. Several large mobile home parks are also located in the township. There are also suburban-style subdivisions in the township.

To maintain a healthy, diverse community that appeals to a wide range of lifestyles, it is necessary to ensure that a diverse range of housing options exist. Existing housing must remain well-maintained and nuisances must be controlled, to preserve property values and offer prospective Madisonians a positive impression of the community. Zoning regulations should not stifle but encourage redevelopment opportunities.

The housing element discusses the existing conditions and the factors that affect the housing market in the township, and establishes policy to guide development, maintenance, and redevelopment of housing resources.

The housing element is closely tied to other elements of the comprehensive plan. All of the elements touch on factors contributing to the quality of life of in the Township. More in-depth analysis and discussion of land use, transportation, public service delivery, and recreational needs can be found in other plan elements. Issues regarding location and form of residential development are in the land use element.

6.2 1996 Comprehensive Plan

The 1996 Madison Township Comprehensive Plan did not include a housing chapter, and had no long-range goals or policies related specifically to housing. Residential development was briefly addressed in a section regarding residential land use and zoning, stating the need for site development plans for higher density development.

6.3 Housing issues

SLOW REGIONAL POPULATION GROWTH

Compared to previous generations, Cleveland area residents are now spread thinner among far more housing units, on lots that are much larger, located further afield from the region's core. Many communities in Lake County stake their growth on attracting married couples with children, but such families are a shrinking percentage of all households.

While the popular perception that eastern Lake County is growing rapidly is not true, the pace of housing construction and resulting urban sprawl give the impression that the post-WWII population boom continues to this day. The population of Madison Township is growing

slowly, but many other communities in the region are facing a stagnant or declining population, even those where vacant land is plentiful and housing construction continues.

SENIOR CITIZENS

The fastest growing segment of the population is senior citizens. The number of Lake County residents that are 65 or older is expected to rise from 29,900 (13.6% of the county population) in 2000 to 35,600 (15.8%) in 2015. There may be an increased demand for senior-friendly housing – maintenance-free patio homes, townhouses,



condominiums in multi-family buildings, and independent and assisted living centers – in convenient locations that reduces the need to drive for day-to-day needs. The low density zoning in the township limits the potential for building housing that would appeal to seniors; townhouses and patio homes. Although retail development is growing in the township, but the services many senior citizens depend on are a long drive away. As seniors age, they may be less able to maintain large houses on large lots.

NORTH MADISON

Residential areas in North Madison, originally founded as a seasonal community, were platted in the 1920s. Almost all housing units in North Madison are now occupied throughout the year. Many of these houses are small, winterized cottages originally built only for summer use.

MANUFACTURED HOUSING

Manufactured housing comprises a larger portion of the township's housing stock than any other community in Lake County; 15.3%, compared to 2.5% for the county as a whole.

Newer manufactured homes tend to be built to much higher standards than their predecessors, and meet local building codes. However, most manufactured homes in Madison Township are smaller single-wides, usually with less than 1000 square feet of floor space. Many manufactured homes in the township are bare aluminum-skinned single-wide trailers, built before the 1976 Federal Manufactured Home Construction and Safety Standards Acts (HUD code) was enacted. There are few larger manufactured or modular houses in the township.

PROPERTY MAINTENANCE AND CODE ENFORCEMENT

In semi-rural communities such as Madison Township, many residents will engage in hobbies or home-based businesses that would either be considered nuisances, or violate zoning rules for permitted uses in residential zoning districts. Unregistered and inoperable vehicles, commercial vehicles and heavy equipment, compulsive collecting, poorly maintained or overgrown yards, and peeling paint are common problems in many areas. In 2001, the State of Ohio has enacted legislation to permit townships to provide for the abatement, control or removal of nuisances.

6.4 Housing inventory

Madison Township had 6,347 housing units in 2000, according to Census data. The population of the township rose by only 24% during the same time. Declining household and family size accounts for the difference in population and housing growth rates; the same number of people occupies more housing units now than in the past. (Table 6.1)

Table 6.1 Housing uni Madison Towns	ts 1970-2005 thip		
Year	Housing units	Change from previous decade	∆% from previous decade
1970	3,693	n/a	n/a
1980	5,204	+1,511	+40.9%
1990	5,673	+469	+11.9%
2000	6,347	+584	+11.9%
2005	6,797	+450	+7.8%
Includes a very sm (US Census Burea	all number of seaso u)	nal housing units.	

HOUSING STOCK AGE

Despite being a growing exurban community with signs of residential construction throughout, housing in Madison Township tends to be slightly older than in surrounding communities. Rental housing units tend to be older than owner-occupied units. (Table 6.2)

Table 6.2 Housing age: median year housing built 2000 Madison Township; comparison to other communities														
Median year housing built														
Community Owner occupied units Rental units All occupie units														
Madison Township	1969	1965	1968											
Madison Village	1973	1970	1972											
Perry Township	1970	1967	1970											
Geneva Township	1957	1959	1958											
Harpersfield Township	1973	1965	1972											
Thompson Township	1977	1946	1974											
Lake County	1971	1969	1970											
(US Census Bureau)														

The high median age of housing in Madison Township is due to the large number of cottages in North Madison that were built before and just after World War II. In Tract 2057.2 (Northwest), which includes much of North Madison, the median age for a house was 36 years at the time of Census 2000. (Table 6.3)

Table 6.3 Housing age: r	nedian year l	housing buil	t 2000
Madison Township	and Census tra	cts	
	Medi	an year housing	built
Community	Owner	Rental units	All occupio

Community	Owner occupied units	Rental units	All occupied units
Madison Township	1969	1965	1968
2057.1 (West)	1977	1972	1976
2057.2 (Northwest)	1964	1961	1963
2058 (Southwest)	1971	1940	1969
2059 (Southeast)	1956	1970	1958
2060 (Northeast)	1967	1964	1966
(US Census Bureau)			

The boom years for Madison Township were between 1940 and 1959, when almost half of all housing units in the community were built. A higher portion of the township's housing stock was built between 1940 and 1959 than in all surrounding communities. (Table 6.4)

Table 6.4 Housing age: yea Madison Township; c						es										
Community < 1939 1940-1949 1950-1959 1960-1969 1970-1979 1980-1989 1990-1999 2000-20															2005	
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%
Madison Township	763	8.1%	1,526	16.2%	3,052	32.5%	851	9.0%	1,342	14.3%	526	5.6%	874	9.3%	470	5.0%
Madison Village	254	20.3%	17	1.4%	83	6.6%	135	10.8%	255	20.4%	98	7.8%	265	21.2%	145	11.6%
Perry Township	254	7.6%	508	15.1%	1,016	30.2%	407	12.1%	350	10.4%	161	4.8%	507	15.1%	159	4.7%
Geneva Township*	1,935	35.6%	589	10.8%	959	17.7%	581	10.7%	819	15.1%	460	8.5%	629	11.6%	n/a	n/a
Harpersfield Township*	189	18.5%	82	8.0%	65	6.3%	106	10.4%	346	33.8%	85	8.3%	151	14.7%	n/a	n/a
Thompson Township*	180	19.9%	54	6.0%	54	6.0%	143	15.8%	98	10.8%	148	16.3%	229	25.3%	n/a	n/a
Lake County	9,930	9.9%	8,528	8.5%	23,172	23.0%	15,296	15.2%	16,837	16.7%	10,050	10.0%	11,843	11.8%	5,082	5.0%
* Ashtabula and Geauga 	Census	Bureau	u. 2000	-2005	data –	Lake C	ountý F									

Housing built between 1990 and 2000 makes up a larger percentage of the western and southern ends of the township than in the northwest and northeast. 62% of all housing built after 1980 are located in tract 2057.1 (west). The bulk of these units are likely to be single-wide mobile homes replacing older units at mobile home parks. (Table 6.3). Only 31% of all housing built between 1990 and 2000 was in North Madison (tracts 2057.2 and 2060), the most urbanized area of the township. (Table 6.5)

	lousing age: year housing unit built Nadison Township and Census tracts															
Community	< 19	939	1940-	1949	1950-	1959	1960-	1969	1970-	1979	1980-	1989	1990-	1999	2000-	2005
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%
Madison Township	763	8.1%	1,526	16.2%	3,052	32.5%	851	9.0%	1,342	14.3%	526	5.6%	874	9.3%	470	5.0%
2057.1 (West)	142	7.2%	57	2.9%	286	14.5%	206	10.5%	415	21.1%	345	17.5%	520	26.4%	n/a	n/a
2057.2 (Northwest)	142	12.2%	106	9.1%	278	23.9%	215	18.5%	285	24.5%	69	5.9%	70	6.0%	n/a	n/a
2058 (Southwest)	103	22.0%	39	8.3%	57	12.2%	39	8.3%	99	21.2%	28	6.0%	103	22.0%	n/a	n/a
2059 (Southeast)	138	37.5%	16	4.3%	35	9.5%	23	6.3%	66	17.9%	9	2.4%	81	22.0%	n/a	n/a
2060 (Northeast)	313	14.0%	179	8.0%	384	17.1%	436	19.5%	557	24.9%	173	7.7%	199	8.9%	n/a	n/a
LCPC data may vary from	Census	data.	Data ir	this ta	able ma	ay vary	from of	ther tal	oles in	this ele	ment.					

HOUSING TYPE

Compared to surrounding communities and the county, the housing inventory of Madison Township contains a disproportionately large number of mobile homes; more than 15% of the housing stock. Only about 6% of all site-built houses in Lake County are located in Madison Township, but 41% of all mobile homes in the county are located there. The percentage of

mobile homes is comparable to adjacent exurban communities beyond the Lake County boundary. (Table 6.5)

Table 6.5 Units in structure Madison Township; c			othe	r con	nmur	nities													
	Total		ınit ched		nit ched	_	2 its	_	-4 its	_	-9 its		-19 its)+ its		bile me	Boat van, e	
Community	housing units	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	
Madison Township	6,213	4,777	76.9%	97	1.6%	66	1.1%	122	2.0%	57	0.9%	48	0.8%	95	1.5%	951	15.3%	0	0.0%
Madison Village	1,171	892	76.2%	98	8.4%	52	4.4%	51	4.4%	57	4.9%	0	0.0%	18	1.5%	3	0.3%	0	0.0%
Perry Township	6,114	4,332	70.9%	785	12.8%	107	1.8%	112	1.8%	262	4.3%	197	3.2%	58	0.9%	261	4.3%	0	0.0%
Geneva Township	5,432	3,555	65.4%	68	1.3%	301	5.5%	323	5.9%	230	4.2%	141	2.6%	47	0.9%	729	13.4%	21	0.4%
Harpersfield Township	1,024	806	78.7%	6	0.6%	16	1.6%	6	0.6%	26	2.5%	14	1.4%	0	0.0%	150	14.6%	0	0.0%
Thompson Township	906	713	78.7%	0	0.0%	15	1.7%	30	3.3%	0	0.0%	0	0.0%	0	0.0%	142	15.7%	0	0.0%
Lake County	93,487	68,094	72.8%	5,849	6.3%	1,573	1.7%	2,194	2.3%	3,875	4.1%	3,575	3.8%	5,989	6.4%	2,329	2.5%	9	←0.1%
Annual data for new hous (Lake County Planning Co	_		not ir	clude	mob	ile ho	mes.	LCPC	data	may v	ary fro	om Ce	nsus	data.					

75% of all mobile homes in Madison Township are located in tract 2071.1 (West), where they make up about 70% of all housing units. Slightly more than 50% of all housing units in tract 2060 (Northeast) are mobile homes. (Table 6.6)

Table 6.6 Units in structure Madison Township ar			cts																
	Total	1-u deta	ınit ched	1-u atta	nit ched	_	2 its	3. un	-4 its	_	-9 its		10-19 units)+ its	Mobile home		Boat, RV,	
Community	housing units	Units	%	Units	%	Units	%	Units	%	Units		Units		Units	%	Units		Units	
Madison Township	6,213	4,777	76.9%	97	1.6%	66	1.1%	122	2.0%	57	0.9%	48	0.8%	95	1.5%	951	15.3%	0	0.0%
2057.1 (West)	1,024	806	78.7%	6	0.6%	16	1.6%	6	0.6%	26	2.5%	14	1.4%	31	1.6%	715	36.3%	0	0.0%
2057.2 (Northwest)	906	713	78.7%	0	0.0%	15	1.7%	30	3.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2058 (Southwest)	1,971	1,123	57.0%	25	1.3%	7	0.4%	18	0.9%	42	2.1%	10	0.5%	14	3.0%	0	0.0%	0	0.0%
2059 (Southeast)	1,165	1,146	98.4%	4	0.3%	6	0.5%	9	0.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2060 (Northeast)	468	444	94.9%	7	1.5%	3	0.6%	0	0.0%	0	0.0%	0	0.0%	50	2.2%	236	10.5%	0	0.0%
Annual data for new hous (Lake County Planning Co			not in	clude	mobi	le ho	mes.	LCPC	data r	nay v	ary fro	om Ce	nsus (data.					



HOUSING SIZE

The decennial Census does not collect data for house square footage. Instead, the Census counts the number of rooms (living rooms, family rooms, bedrooms, kitchens, dining rooms, but not "three season rooms", bathrooms or closets) in a house.

The median number of rooms in the typical Madison Township home (6.1 rooms) is the same as those in the township and the county as a whole (6.1 rooms), but smaller than Madison Village and Perry Township In 2000, 41% of township housing units had five or fewer rooms, compared to 30% of Madison Village, 25% of Perry Township, and 38% of the county as a whole. (Table 6.7)

Table 6.7 Rooms per unit 2000 Madison Township; comparison to other communities															
Community	1-3 rc	ooms	4 ro	oms	5 ro	oms	6 ro	oms	7 ro	oms	8 ro	oms	9+ rc	oms	Median
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	rooms
Madison Township	338	5.4%	753	12.1%	1,480	23.8%	1,314	21.1%	1,043	16.8%	624	10.0%	661	10.6%	6.1
Madison Village	87	7.4%	102	8.7%	158	13.5%	330	28.2%	208	17.8%	157	13.4%	129	11.0%	6.3
Perry Township	60	2.0%	238	8.1%	437	14.8%	615	20.9%	578	19.6%	576	19.6%	439	14.9%	6.8
Geneva Township	737	13.6%	980	18.0%	1,071	19.7%	1,181	21.7%	709	13.0%	455	8.4%	299	5.5%	5.4
Harpersfield Township	43	4.2%	160	15.6%	165	16.%1	173	16.9%	145	14.2%	148	14.5%	190	18.6%	6.3
Thompson Township	56	5.7%	101	11.7%	223	24.6%	231	25.5%	116	12.8%	84	9.3%	95	10.5%	5.8
Lake County	6,857	7.3%	10,660	11.4%	18,369	19.6%	21,000	22.5%	15,876	17.0%	11,430	12.2%	9,295	9.9%	6.1
For each unit, rooms inclu	ıde livin	g room	s, dinin	g room	s, kitch	ens, be	drooms	, finish	ed recre	ation re	ooms, e	nclosed	porche	es suita	able for
year-round use, and lodgers' rooms. Excluded are strip or pullman kitchens, bathrooms, open porches, balconies, halls or foyers, half-															
rooms, utility rooms, unfinished attics or basements, or other unfinished space used for storage. A partially divided room is a separate															
room only if there is a par (US Census Bureau)	rtition fr	om floc	or to cei	ling, bu	t not if	the par	tition co	onsists	solely o	f shelve	es or ca	binets.			

The largest homes in Madison Township can be found in tracts 2058 (southwest) and 2059 (southeast). Less than 3% of homes in those tracts have four or fewer rooms, compared to 17.5% in tract 2057.1 (west) and 23% in tract 2060 (northeast). (Table 6.8)

Table 6.8 Rooms per unit 2000 Madison Township and Census tracts															
Community 1-3 rooms 4 rooms 5 rooms 6 rooms 7 rooms 8 rooms 9+ rooms N										Med					
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	rooms
Madison Township	338	5.4%	753	12.1%	1,480	23.8%	1,314	21.1%	1,043	16.8%	624	10.0%	661	10.6%	6.1
2057.1 (West)	112	5.7%	357	18.1%	506	25.7%	263	13.3%	305	15.5%	185	9.4%	243	12.3%	5.5
2057.2 (Northwest)	5	0.4%	77	6.6%	233	20.0%	309	26.5%	266	22.8%	174	14.9%	101	8.7%	6.4
2058 (Southwest)	4	0.9%	6	1.3%	119	25.4%	85	18.2%	102	21.8%	64	13.7%	88	18.8%	6.7
2059 (Southeast)	7	1.9%	3	0.8%	52	14.1%	123	33.4%	77	20.9%	35	9.5%	71	19.3%	6.5
2060 (Northeast)	210	9.4%	310	13.8%	570	25.4%	534	23.8%	293	13.1%	166	7.4%	158	7.1%	5.6
2060 (Northeast) 210 9.4% 310 13.8% 570 25.4% 534 23.8% 293 13.1% 166 7.4% 158 7.1% 5.6 For each unit, rooms include living rooms, dining rooms, kitchens, bedrooms, finished recreation rooms, enclosed porches suitable for year-round use, and lodgers' rooms. Excluded are strip or pullman kitchens, bathrooms, open porches, balconies, halls or foyers, half-rooms, utility rooms, unfinished attics or basements, or other unfinished space used for storage. A partially divided room is a separate room only if there is a partition from floor to ceiling, but not if the partition consists solely of shelves or cabinets. (US Census Bureau)															

The median number of bedrooms for a house in Madison Township is 2.8; lower than its neighbors (except Geneva Township) and the county as a whole. The township has a higher percentage of units with only two bedrooms than units in surrounding communities (except Geneva Township) and the county. (Table 6.9)

Table 6.9 Bedrooms per unit Madison Township; comparison to other communities													
Community	No bed	rooms	1 bea	lroom	2 bed	rooms	3 bed	rooms	4 bed	rooms	5+ bed	rooms	Median
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	BRs
Madison Township	66	1.1%	297	4.8%	1,491	24.0%	3,182	51.2%	1,010	16.3%	167	2.7%	2.8
Madison Village	0	0.0%	11	3.5%	48	15.2%	163	51.6%	76	24.1%	18	5.7%	3.1
Perry Township	0	0.0%	55	2.5%	375	17.1%	1,103	50.4%	550	25.1%	106	4.8%	3.1
Geneva Township	86	1.6%	775	14.3%	1,647	30.0%	2,147	39.5%	601	11.1%	176	3.2%	2.5
Harpersfield Township	0	0.0%	44	4.3%	234	22.9%	453	44.2%	232	22.7%	61	6.0%	3.0
Thompson Township	0	0.0%	48	5.3%	155	17.1%	514	56.7%	151	16.7%	38	4.2%	3.0
Lake County	775	0.8%	6,913	7.4%	20,708	22.2%	44,626	47.7%	17,877	19.1%	2,588	2.8%	2.9
(US Census Bureau)													

The highest percentage of housing units with two or fewer bedrooms can be found in tracts 2057.1 (west) and 2060 (northeast). This may be due to the large number of mobile homes and older cottages in those tracts. (Table 6.10)

	Table 6.10 Bedrooms per unit Madison Township and Census tracts												
Community	No bed	rooms	1 bed	room	2 bed	rooms	3 bed	rooms	4 bed	rooms	5+ bed	rooms	Median
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	BRs
Madison Township	66	1.1%	297	4.8%	1,491	24.0%	3,182	51.2%	1,010	16.3%	167	2.7%	2.8
2057.1 (West)	26	1.3%	104	5.3%	529	26.8%	881	44.7%	387	19.6%	44	2.2%	2.8
2057.2 (Northwest)	0	0.0%	15	1.3%	220	18.9%	670	57.5%	233	20.0%	27	2.3%	3.0
2058 (Southwest)	0	0.0%	4	0.9%	77	16.5%	249	53.2%	109	23.3%	29	6.2%	3.2
2059 (Southeast)	7	1.9%	13	3.5%	30	8.2%	228	62.0%	68	18.5%	22	6.0%	3.1
2060 (Northeast)	33	1.5%	161	7.2%	635	28.3%	1,154	51.5%	213	9.5%	45	2.0%	2.7
(US Census Bureau)													

HEATING FUEL

Most housing units in Madison Township are heated with natural gas (72%) or electricity (18%). An increasing number of housing units are heated with bottled gas, which indicates an increase in the number of mobile homes, and residential construction in rural areas with no gas service. Only 136 houses are heated through alternative means such as wood or fuel oil. (Table 6.11)

Table 6.11 Heating fuel used 1990-2000 Madison Township										
	199	90	200	00						
Fuel	Units	%	Units	%						
Utility gas	3663	69.8%	4775	71.9%						
Bottled, tank or LP gas	77	1.5%	135	2.0%						
Electricity	602	11.5%	1182	17.8%						
Fuel oil or kerosene	734	14.0%	409	6.2%						
Coal or coke	18	0.3%	0	0.0%						
Wood	102	1.9%	75	1.1%						
Solar	0	0.0%	0	0.0%						
Other fuel	43	0.8%	61	0.9%						
No fuel	7	0.1%	0	0.0%						
(US Census Bureau)										

PLUMBING AND KITCHEN FACILITIES

170 housing units in Lake County do not have complete plumbing facilities, and 233 units do not have complete kitchen facilities. 11 units in the township lack complete plumbing facilities, and 15 lack complete kitchen facilities; most are renter-occupied units. (Table 6.12)

Table 6.12 Kitchen and plumbing facilities 2000 Madison Township										
Tenure	Tenure Total units w/ miss w/ miss w/ miss w/ miss w/ complete complete complete complete plumbing plumbing witchen witchen									
Owner	4,766	4,762	0.1%	4,766	0.0%					
Renter	927	920	0.1%	912	1.6%					
Total units 5,693 5,682 0.1% 5,678 0.3%										
Occupied housing units only. (US Census Bureau)										

WATER AND SEWER

About 93% of all dwelling in Lake County are supplied with water from a public or private water utility. The rest are served by wells or another source; usually delivered by truck. About 75% of housing units in Madison Township are served by a public water system.

84% of all dwellings in the county are served by a public sewer system, with most others using a septic system or cesspool. 66% of housing units in Madison Township are connected to the municipally controlled sewer system; all others rely on septic systems for wastewater disposal. (Table 6.13)

Table 6.13 Source of water and sewage disposal 1990 Madison Township										
Water source	Units	%								
Public water system or private company	4239	74.7%								
Individual well: drilled 666 11.7%										
Individual well: dug 733 12.9%										
Other source	34	0.6%								
Sewage disposal	Units	%								
Public sewer	3728	65.7%								
Septic tank or cesspool	1892	33.4%								
Other means 52 0.9%										
Statistics may or may not consider sewer systems limited to a subdivision (US Census Bureau)										

6.5 Home ownership and rental trends

TENURE AND OCCUPANCY

The percentage of owner-occupied housing units has risen gradually since 1970, making up 84% of all units in the township in 2000. (Table 6.14)

Table 6.14 Tenure of occupied housing units 1970-2000 Madison Township									
Year Occupied Owner occupied Renter occupied units Units % Units %									
	units	Units	%	Units	%				
1970	3,314	2,596	78.3%	718	21.7%				
1980	4,714	3,809	80.8%	905	19.2%				
1990	5,246	4,174	79.6%	1,072	20.4%				
2000 5,827 4,766 83.7% 927 16.3%									
Does not include seasonal housing (6 units). (US Census Bureau)									

The percentage of owner-occupied housing units in Madison Township is comparable to neighboring communities, and slightly higher than the county as a whole. (Table 6.15)

Table 6.15 Housing tenure 2000 Madison Township; comparison to other communities										
Community Owner occupied Renter occupied										
Community	Units % Units %									
Madison Township	Madison Township 4,766 83.7% 927 16.3%									
Madison Village	848	76.6%	259	23.4%						
Perry Township	1,934	91.3%	184	8.7%						
Geneva Township	3,188	68.2%	1,484	31.8%						
Harpersfield Township	853	87.0%	127	13.0%						
Thompson Township	790	90.6%	82	9.4%						
Lake County 69,502 77.5% 20,198 22.5%										
Includes seasonal housing. (US Census Bureau)										

Tracts 2057.1 (west) and 2060 (northeast) contain the highest percentage of renter-occupied housing units in the township. The large percentage of rental units in tract 2060 may be attributed to the large stock of older cottages. In the township's mobile home parks, residents normally own their dwellings, but rent the land they sit on. (Table 6.16)

Table 6.16 Housing tenure 2000 Madison Township and Census tracts									
Community Owner occupied Renter occupied									
Community Units % Units %									
Madison Township	4,766	83.7%	927	16.3%					
2057.1 (West)	1,544	85.5%	261	14.5%					
2057.2 (Northwest)	941	88.2%	126	11.8%					
2058 (Southwest)	419	92.9%	32	7.1%					
2059 (Southeast)	319	88.9%	40	11.1%					
2060 (Northeast) 1,543 76.7% 468 23.3%									
Includes seasonal housing. (US Census Bureau)									

Table 6.17 Housing vacancy 2000 Madison Township; comparison to other communities									
Community Occupied units Vacant units									
Community	Community Units % Units %								
Madison Township	5,693	91.6%	520	8.4%					
Madison Village	1,107	94.8%	64	5.2%					
Perry Township	2,118	96.8%	71	3.2%					
Geneva Township	4,672	86.0%	760	14.0%					
Harpersfield Township	970	93.6%	66	6.4%					
Thompson Township	866	95.6%	40	4.4%					
Lake County 89,700 95.9% 3,787 4.1%									
Includes seasonal housing. (US Census Bureau)									

The vacancy rate among owner-occupied units (2.0%) is much lower than for renter-occupied units (31.3%). (Table 6.18).

_	Vacancy of housing units 2000 Madison Township										
Community All units Owner occupied units Renter occupied units											
Community	Total	Vacant	% vacant	Total	Vacant	% vacant	Total	Vacant	% vacant		
Madison Township	6,347	520	8.40%	4,864	98	2.0%	1,349	422	31.3%		
2057.1 (West)	1,971	166	8.40%	1,576	32	2.0%	395	134	33.9%		
2057.2 (Northwest)	1,165	98	8.40%	962	21	2.2%	203	77	37.9%		
2058 (Southwest)	468	17	3.60%	429	10	2.3%	39	7	17.9%		
2059 (Southeast)	368	9	2.40%	319	0	0.0%	49	9	18.4%		
2060 (Northeast)	2,241	230	10.30%	1,578	35	2.2%	663	195	29.4%		
Does not include seasonal housing. (US Census Bureau)											

The housing vacancy rate of Madison Township in 2000 was higher (8.4%) than Madison Village Perry Township, Perry Village, and the county as a whole. (Table 6.16)

Table 6.19 Housing vacancy Madison Township ar		racts		
Community	Occupie	d units	Vacant	t units
Community	Units	%	Units	%
Madison Township	5,693	91.6%	520	8.4%
2057.1 (West)	1,805	91.6%	166	8.4%
2057.2 (Northwest)	1,067	91.6%	98	8.4%
2058 (Southwest)	451	96.4%	17	3.6%
2059 (Southeast)	359	97.6%	9	2.4%
2060 (Northeast)	2,011	89.7%	230	10.3%
Includes seasonal housin (US Census Bureau)	g.			



HOMEOWNER EXPERIENCE

US Census statistics, as used in this element, tend to underestimate the price of real estate in a community. Respondents will often state the value of their property as the original list price from years ago, or else they are unaware of market conditions affecting the value of their property.

The median home price in Madison Township (\$134,915 in 2006) is lower than most surrounding communities. (Table 6.20)

Median home prices 1990-2000 Madison Township; comparison to other communities													
Community 1990 2000 1990- estimate (2000+21%) Madison Township \$64,065 \$111,500 74.0% \$134,915													
Madison Township	\$64,065	\$111,500	74.0%	\$134,915									
Madison Village	\$70,000	\$125,000	78.6%	\$151,250									
Perry Township	\$66,198	\$144,100	117.7%	\$174,361									
Geneva Township	\$46,600	\$88,700	90.3%	\$107,327									
Harpersfield Township	\$68,900	\$132,000	91.5%	\$159,720									
Thompson Township	\$71,600	\$134.500	87.8%	\$162,745									
Lake County	\$73,900	\$127,900	73.1%	\$154,759									

Table 6.21 Median home p Madison Township				
Community	1990	2000	∆% 1990- 2000	2006 estimate (2000+21%)
Madison Township	\$64,065	\$111,500	74.0%	\$134,915
2057.1 (West)	\$57,400	\$90,300	57.3%	\$109,263
2057.2 (Northwest)	\$67,300	\$97,000	44.1%	\$117,370
2058 (Southwest)	\$74,900	\$141,500	88.9%	\$171,215
2059 (Southeast)	\$71,300	\$130,800	83.5%	\$158,268
2060 (Northeast)	\$59,400	\$99,600	67.7%	\$120,516
* The boundary between between 1990 and 200 Owner-occupied housi (US Census Bureau)	00.	57.1 and 2057	7.2 changed	slightly

Madison Township contains relatively little high-end housing – units priced at \$200,000 or more in 2000 (7.9%) – compared to Lake County as a whole (15.3%).

Table 6.22 Value for specified or Madison Township	wner-occuj	oied hous	ing units	5 1990-20	000			
		199	90			200	00	
Value of unit	Madison	Township	Lake (County	Madison	Township	Lake (County
	Units	% of units	Units	% of units	Units	% of units	Units	% of units
≤\$59,999	1406	46.0%	13,763	25.3%	101	2.8%	1,198	1.9%
\$60,000-\$99,999	1282	42.0%	27,964	51.4%	1474	41.0%	14,727	23.3%
\$100,000-\$124,999	184	6.0%	5,348	9.8%	777	21.6%	14,430	22.8%
\$125,000-\$149,999	88	2.9%	3,563	6.6%	525	14.6%	11,403	18.0%
\$150,000-\$174,999	52	1.7%	1,595	2.9%	243	6.8%	6,887	10.9%
\$175,000-\$199,999	19	0.6%	826	1.5%	197	5.5%	5,031	7.9%
\$200,000-\$249,999	12	0.4%	720	1.3%	146	4.1%	4,976	7.9%
\$250,000-\$299,999	5	0.2%	279	0.5%	63	1.8%	2,314	3.7%
\$300,000+	8	0.3%	323	0.6%	71	2.0%	2,348	3.7%
Total	3,056	n/a	54,381	n/a	3597	n/a	63,314	n/a
(US Census Bureau)								

The number of housing units in Madison Township without mortgages remained the same between 1990 and 2000, while those with mortgages rose. This is a result of the influx of new homeowners into the village. (Table 6.23)

Table 6.23 Mortgage status 199 Madison Township	0-2000	
Mortgage status	1990 units	2000 units
Total	3,092	3,597
With a mortgage	2,351	2,790
2nd mortgage or home equity loan, not both	n/a	388
No 2nd mortgage and no home equity loan	n/a	473
Without a mortgage	741	1,926
(US Census Bureau)		

The rising cost of housing, exceeding the rate of inflation and wage increases, is reflected in the growing percentage of homeowners who pay more than 20% of their household income in mortgage costs; 46% in 1990 to 61% in 2000. (Table 6.24)

Table 6.24 Mortgage status by selected monthly owner costs 1990-2000 Madison Township Percentage of Units with mortgage Units without mortgage													
Percentage of	Units	s with	mort	gage	Units	withou	ut mor	tgage					
household income	1990	%	2000	%	1990	%	2000	%					
<20%	1,310	55.7%	1,186	34.7%	579	78.1%	658	73.2%					
20%-24%	386	16.4%	769	22.5%	58	7.8%	140	15.6%					
25%-29%	248	10.5%	810	23.7%	29	3.9%	12	1.3%					
30%-34% (unaffordable)	123	5.2%	284	8.3%	13	1.8%	56	6.2%					
35%+ (unaffordable)	284	12.1%	370	10.8%	53	7.2%	33	3.7%					
Not computed 0 0.0% 0 0.0% 9 1.2% 0 0.0%													
(US Census Bureau)													

RENTER EXPERIENCE

As expected, median gross rent rose from \$279 in 1990 to \$599 in 2000. The data in Table 6.25 shows that rental housing is available at a wide range of prices, with no disproportionate availability of low-end or high-end units.

Table 6.25 Gross rent 19 8	80-2000											
Madison Townshi	р											
Rent	Madison 1	Township	2057.1	(West)	2057.2 (No	orthwest)	2058 (So	uthwest)	2059 (So	utheast)	2060 (No	rtheast)
Keiit	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%
With cash rent	837	96.6%	244	97.2%	98	82.4%	27	100.0%	16	59.3%	452	96.6%
<\$500	324	32.7%	124	49.4%	27	22.7%	20	74.1%	0	0.0%	153	32.7%
\$500-\$549	85	12.0%	24	9.6%	5	4.2%	0	0.0%	0	0.0%	56	12.0%
\$550-\$599	58	7.7%	15	6.0%	4	3.4%	0	0.0%	3	11.1%	36	7.7%
\$600-\$649	100	14.3%	12	4.8%	21	17.6%	0	0.0%	0	0.0%	67	14.3%
\$650-\$699	78	8.8%	26	10.4%	4	3.4%	7	25.9%	0	0.0%	41	8.8%
\$700-\$749	53	6.2%	14	5.6%	4	3.4%	0	0.0%	6	22.2%	29	6.2%
\$750-\$999	85	12.0%	23	9.2%	28	23.5%	0	0.0%	7	25.9%	70	15.0%
≥\$1,000	11	0.0%	6	2.4%	5	4.2%	0	0.0%	0	0.0%	0	0.0%
No cash rent	55	3.4%	7	2.8%	21	17.6%	0	0.0%	11	40.7%	16	3.4%
Median gross rent (\$)	dian gross rent (\$) \$525 \$496				\$6	31	\$2	85	\$7	42	\$574	
(US Census Bureau)												

Contract rent in Madison Township is slightly lower than Perry Township, Perry Village and Lake County as a whole. (Table 6.23)

	Contract rent 2000 Madison Township; comparison to other communities																
Community														Median			
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	rent
Madison Township	51	5.7%	111	12.4%	344	38.6%	302	33.9%	29	3.3%	0	0.0%	0	0.0%	55	6.2%	\$445
Madison Village	14	5.5%	41	16.1%	82	32.2%	98	38.4%	8	3.1%	0	0.0%	0	0.0%	12	4.7%	\$476
Perry Township	4	2.3%	7	4.0%	48	27.6%	71	40.8%	9	5.2%	0	0.0%	0	0.0%	35	20.1%	\$502
Geneva Township	108	12.2%	260	17.6%	856	57.9%	159	10.8%	12	0.8%	10	0.7%	0	4.9%	73	4.9%	\$382
Harpersfield Township	0	0.0%	13	11.0%	80	67.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	25	21.2%	\$387
Thompson Township	0	0.0%	7	10.4%	46	68.7%	14	20.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	\$425
Lake County 763 3.8% 737 3.7% 5,659 28.3% 10,077 50.3% 1,651 8.2% 106 0.5% 182 0.9% 849 4.2% \$553																	
(US Census Bureau)																	

	Table 6.27 Contract rent 2000 Madison Township and Census tracts																
Community	under	\$200	\$200	\$299	\$300	\$499	\$500	\$749	\$750	\$999	\$1000	\$1499	\$15	00+	No cas	h rent	Median
Community	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	Units	%	rent
Madison Township	51	5.7%	111	12.4%	344	38.6%	302	33.9%	29	3.3%	0	0.0%	0	0.0%	55	6.2%	\$445
2057.1 (West)	24	9.6%	62	24.7%	81	32.3%	69	27.5%	8	3.2%	0	0.0%	0	0.0%	7	2.8%	\$426
2057.2 (Northwest)	5	4.2%	0	0.0%	46	38.7%	41	34.5%	6	5.0%	0	0.0%	0	0.0%	21	17.6%	\$494
2058 (Southwest)	14	51.9%	6	22.2%	0	0.0%	7	25.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	n/a
2059 (Southeast)	0	0.0%	0	0.0%	9	33.3%	7	25.9%	0	0.0%	0	0.0%	0	0.0%	11	40.7%	\$494
2060 (Northeast)	8	1.7%	43	9.2%	208	44.4%	178	38.0%	15	3.2%	0	0.0%	0	0.0%	16	3.4%	\$484
(US Census Bureau)																	

Table 6.28 Gross rent as a p Madison Township; c						ome	1999							
Community	< 1	5%	15% -	19.9%	20% -2	24.9%	25% -2	29.9%	30% -3	34.9%	359	% +	Not cor	nputed
Community	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%
Madison Township	149	16.7%	149	16.7%	109	12.2%	95	10.7%	40	4.5%	198	22.2%	78	8.7%
Madison Village	26	10.2%	26	10.2%	46	18.0%	46	18.0%	29	11.4%	48	18.8%	12	4.7%
Perry Township	31	17.8%	31	17.8%	26	14.9%	8	4.6%	9	5.2%	34	19.5%	35	20.1%
Geneva Township	358	24.2%	233	15.7%	227	15.3%	96	6.5%	112	7.6%	348	23.5%	104	7.0%
Harpersfield Township	48	40.7%	7	5.9%	13	11.0%	6	5.1%	7	5.9%	12	10.2%	26	21.2%
Thompson Township	16	23.9%	9	13.4%	28	41.8%	14	20.9%	0	0.0%	0	0.0%	0	0.0%
Lake County	3,465	17.3%	3,465	17.3%	2,958	14.8%	2,127	10.6%	1,381	6.9%	5,279	26.4%	1,073	5.4%
(US Census Bureau)														

Table 6.29 Gross rent as a p Madison Township ar				ıseho	ld inc	ome	1999							
Community	< 1	5%	15% -1	19.9%	20% -2	24.9%	25% -2	29.9%	30% -3	34.9%	359	% +	Not co	nputed
Community	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%	HHs	%
Madison Township	149	16.7%	149	16.7%	109	12.2%	95	10.7%	40	4.5%	198	22.2%	78	8.7%
2057.1 (West)	52	20.7%	48	19.1%	36	14.3%	27	10.8%	14	5.6%	60	23.9%	14	5.6%
2057.2 (Northwest)	27	22.7%	9	7.6%	9	7.6%	15	12.6%	8	6.7%	21	17.6%	30	25.2%
2058 (Southwest)	14	51.9%	6	22.2%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	7	25.9%
2059 (Southeast)	7	25.9%	0	0.0%	0	0.0%	6	22.2%	3	11.1%	0	0.0%	11	40.7%
2060 (Northeast)	123	26.3%	86	18.4%	64	13.7%	47	10.0%	15	3.2%	117	25.0%	16	3.4%
(US Census Bureau)														

6.6 Construction, demand and trends

RECENT CONSTRUCTION ACTIVITY

About 57% of all housing units built between 1990 and 2005 in Lake County were in the eastern end of the county: Painesville, Concord Township, and communities to the east.

For several decades, the rate of housing construction in Madison Township has exceeded the county as a while. Between 1990 and 2000, the number of housing units in the township increased by 12% (5,673 to 6,347), a rate below Madison Village and Perry Township, but generally comparable with Lake County . From 2000 to 2005, the housing inventory rose by 7.1%, with 450 new units built in the township during that time. (Table 6.30)

Table 6.30 Housing units 19 Madison Township; co			r commu	nities	
Community	1990 units	2000 units	△% 1990- 2000	2005 units	△% 2000- 2005
Madison Township	5,673	6,347	11.9%	6,797	7.1%
Madison Village	896	1,165	30.0%	1,302	11.8%
Perry Township	1,707	2,259	32.3%	2,406	6.5%
Geneva Township	5,116	5,432	6.1%	n/a	n/a
Harpersfield Township	919	1,024	11.4%	n/a	n/a
Thompson Township	806	906	12.4%	n/a	n/a
Lake County	84,658	94,856	12.0%	99,387	4.8%
(US Census Bureau)					

Table 6.31 Housing units 1990-2005 Madison Township and Census tracts					
Community	1990 units	2000 units	△% 1990- 2000	2005 units	△% 2000- 2005
Madison Township	5,673	6,347	11.9%	6,797	7.1%
2057.1 (West) 2057.2 (Northwest)*	2,797	3,136	12.2%	n/a	n/a
2058 (Southwest)	393	468	19.1%	n/a	n/a
2059 (Southeast)	316	368	16.5%	n/a	n/a
2060 (Northeast)	2,166	2,241	3.46%	n/a	n/a
* The boundary between tracts 2057.1 and 2057.2 changed slightly between 1990 and 2000. (US Census Bureau)					

An average of about 65 housing units were built every year between 1990 and 2005 in Madison Township. About one in 14 (7.4%) of all new housing units in Lake County since 1990 were built in Madison Township. More new housing units are built in Madison Township than any of its neighboring communities. (Table 6.32) The jump in new housing units in 2001 is due to the completion of several small subdivisions and condominium complexes, and the expansion of a mobile home park.

Table 6.32 New housing units 1990-2005 Madison Township; comparison to other communities																		
Community	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005		Total units
Madison Township	48	33	58	50	71	59	80	93	56	28	38	193	56	76	62	45	1,046	6,797
Madison Village	13	19	34	21	27	26	16	23	31	16	28	25	23	23	25	21	371	1,302
Perry Township	19	19	39	65	88	62	77	37	62	38	26	30	19	24	32	28	665	2,406
Geneva Township*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	43	31	30	13	16	n/a	5,574
Harpersfield Township*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	12	13	7	8	n/a	1,095
Thompson Township*	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16	11	8	16	18	n/a	970
Lake County	1,004	743	1,047	924	1,001	1,441	859	785	937	382	654	812	689	853	1,007	1,067	14,205	99,387
Annual data for new hous	_ake County																	

TEARDOWN AND REDEVELOPMENT OF EXISTING HOUSING

According to housing-industry economists, the housing stock of the United States is in the process of being rebuilt, as aging houses are torn down to make room for newer homes. The average age of an American home is about 33 years, older than any previous time in U.S. history. In Madison Township, the average housing unit is about 34 years old. As the housing stock ages, construction activity will be elevated, to replace housing stock which is wearing out.

The forces driving "teardowns" in many other cities – a rapidly growing population, high land values, and the revitalization and increasing desirability of central cities and inner ring suburbs – are absent in the Cleveland area. Teardowns are taking place in some lakefront cottage communities in Willoughby and Eastlake, where older cottages are replaced with larger homes.

With a large supply of raw land, it is unlikely that structurally sound houses will be replaced with larger houses. Teardowns may grow increasingly common in North Madison, particularly on lakefront parcels and sites occupied by very small cottages. In any case, zoning should ensure older non-conforming lots remain buildable.

FUTURE DEMAND

If future development patterns and land use policy remain unchanged from today, the majority of new housing units will probably be built in the villages and unincorporated townships in eastern Lake County, with an ever-growing percentage in once-rural exurban areas. According to data from the Housing Research Policy Institute at Cleveland State University, in 1997 and 1998 81% of suburban Cleveland households that moved relocated further out from the central city. 80% of those that moved bought a more expensive house, with a median move-up price of 57%.

Average household size is likely to continue shrinking; from 2.5 people per household in the county in 2000 to 2.26 in 2010 and 2.03 in 2020. According to Ohio Department of Development and NOACA calculations, the population of Lake County is expected to peak at 234,524 residents in 2020, and drop to 232,345 residents in 2030. New housing will be driven by shrinking family sizes and a growing number of households, not raw population growth.

Exurban communities throughout the country are growing, but they are susceptible to increased energy costs – gasoline for travel and lot maintenance, and natural gas and electricity for heat – and an aging population that is less able to maintain a large home on a large lot.

6.7 Public and affordable housing

Madison Township has no public housing. The infrastructure needed to support public housing and the needs of those living there, both physical (utilities, fixed route public transportation) and social (public agencies, nearby employment, retail and personal services), are not available in or near the township.

The cost of maintaining a large house on a large lot – mowing and landscaping, snow clearing and exterior maintenance – is a burden to seniors who want to remain in their homes through their golden years. Permitting a wider variety of housing options to be built, and encouraging the nearby location of convenient medical and retail services, will keep the Township attractive and affordable to aging residents.

6.8 Goals and policies

Each primary paragraph (in **bold type**) is a statement of a goal. The subparagraphs are policies for implementing the goal. Each primary paragraph (in bold type) is a statement of a goal. Many goals and policies related to housing can be found in the Land Use element and throughout the plan.

- HS-1 The range of housing available in Madison Township should be diversified, but in a manner that preserves the semi-rural and predominantly single family character of the community.
- HS-1-p1 Permit scattered, limited accessory dwelling units and two-family houses on lots served by public sewer and water service in the North Madison areas.
- HS-1-p2 Allow for a variety of housing sizes and price ranges, to permit elderly residents to stay in the community as they age, young adults to live in the town as they start off their careers, and also provide move-up housing in a small town setting. Consider a design formbook and voluntary residential design guidelines for the North Madison area.
- HS-1-p3 Encourage honest, quality home design that reflects and respects the semi-rural character of the township, and the architectural heritage of the region.
- HS-1-p4 Ensure that nonconforming lots can be developed for housing that conforms to the character of the area surrounding the site.
- HS-1-p5 Prohibit the construction of new mobile home parks.

7 Public facilities

7.1 Introduction

Madison Township, like many exurban and rural communities, does not have the same level of amenities as more densely populated urban and suburban areas. Resident surveys have revealed that there is little dissatisfaction with public facilities in the area; schools, parks, and other municipal facilities. As the population grows, though, existing public facilities may become stretched.

The intent of the Public Facilities element is to ensure that schools, parks, public safety facilities, community centers, and other government-provided amenities continue to meet, if not exceed, the needs of township residents and visitors, contribute positively to enhancing the overall quality of life, and preserve the semi-rural character of the township.

7.2 Schools

1963 VILLAGE COMPREHENSIVE PLAN

Madison Local School District encompasses both Madison Township and Madison Village.

Red Bird Elementary School, at 1956 Red Bird Road in North Madison, has a current enrollment of 476 K-5 students. Nearby North Madison Elementary School, at 6735 North Ridge Road, has a current enrollment of 460 K-5 students

Students in both the village and township attend grades six through eight at Madison Middle School, located at 1941 Red Bird Road at the north end of Madison Township. The capacity of Madison Middle School has a capacity of 574 students, but a current enrollment of 874 students.

Madison High School is located at 3100 Burns Road, north of Middle Ridge Road, in Madison Township. The high school is about two miles (3 kilometers) from the village center. Madison High School has a capacity of 1,073 students, and a current enrollment of 1,324 students.

Some schools located in the Madison Village, such as the Madison Memorial Complex (92 East Main Street, where pre-school programs are held), and Homer Nash Kimball School (94 River Street, K-5), serve some pupils that live in Madison Township. The capacity of Homer Nash Kimball School is 400 students, with enrollment above capacity at the time this plan was written, at 534 students.

SCHOOL SPRAWL

Throughout the United States, and particularly in Ohio where an ambitious school construction program is underway, school sprawl is becoming a growing issue. As a result of site standards, new schools are built at locations more distant and difficult to reach from the neighborhoods they serve. School siting policies also make it hard for built-up neighborhoods to retain old school buildings, even if they are structurally sound and architecturally impressive.

When the school anchors a neighborhood, both the students and residents benefit. The trend of building shopping mall-sized schools outside town alienates students, encourages sprawl, and impairs the sense of community and place. When schools are placed in a location beyond

walking distance of most residential areas, children lose one source of exercise, and become at added risk for obesity.

7.3 Parks

Madison Township has a relatively large amount of parkland. However, the township has few community and neighborhood parks intended to serve primarily area residents. The township includes more than six miles (10 kilometers) of Lake Erie shoreline, but only 1600 feet (490 meters) of frontage, or about 5%, is publicly accessible.

Table 7.1 Public parks Madison Township, outside of Madison Village										
Park	Ownership	General location	Acres	Facilities						
Tuttle Park	Township	North Madison: west	3.7	Tennis courts. Ball diamond (neglected). Access to Lake Erie shoreline.						
Stanton Park	Township	North Madison: west	30	Cabins, pool, playground, picnic area, community buildings. Access to Lake Erie shoreline.						
Unionville Park	Township	Central Madison: east	5	Playground						
Madison Township Park	Township	North Madison: central	15.6	Ball diamond. Gazebo. Access to Lake Erie shoreline.						
Arcola Creek Park	Metroparks	North Madison: east	153	Picnic area. Portable restrooms. Fishing. Observation deck. Access to Lake Erie shoreline.						
Hidden Valley Park	Metroparks	Grand River: central	152	Picnic area with grills. Picnic shelter with fire ring. Drinking water. Restrooms. Hiking trails. Playground. Fishing. Sledding hill. Ball/game fields. Canoe access.						
Riverview Park	Metroparks	Grand River: central	45	Picnic area with grills. Picnic shelter. Fire ring. Restrooms. Hiking trail. Fishing. Sledding hill.						
Hogback Ridge Park	Metroparks	Grand River: east	414	Picnic area with grills. Picnic shelter. Restrooms. Hiking trails. Fishing. Cabin rental.						
Erie Shores Golf Course	Metroparks	North Madison: east	106	18-hole golf course						
Total			924	-						

MADISON TOWNSHIP PARKS

Madison Township Trustees has ownership of four community parks, three of which are in North Madison. Tuttle Park, at the western end of North Madison, includes two tennis courts, and a neglected baseball/softball diamond. Stanton Park is also near the western end of north Madison and has yet to realize its recreational potential. Township Park, at the northern end of Hubbard Road, includes one ball diamond and a gazebo. Unionville Park is a smaller facility located near the township border near Countyline Rd. Baseball fields also exist at the Township Service Dept. on Hubbard Rd.

Stanton Park is an underutilized park with a rental cabin, public swimming pool and various community hall facilities that can be used by the general public. Increased coastal erosion,

beach creation and a more active land use, along with interaction with adjacent Rabbit Run Theatre would vield more visitors to this park. This plan recommends a site specific master plan for the park to address the feasibility of a tourist oriented destination. This may include new energy efficient rental cottages, modern community building for weddings, public meeting space and performances and a new public beach. Ultimately, this park could be an economic driver for the community. The 2005 Lake County Coastal Plan also identifies this amenities as a potential for Stanton Park (see adjacent graphics).



Madison Township Park is bounded on two sides by Lake Road and Hubbard Road, and one side by Lake Erie. It is ideally positioned to serve as a traditional village square for the central end of North Madison. With the right mix of land uses surrounding it – buildings

fronting the sidewalk, housing cafes, bars and small shops — Madison Township Park has the potential of being the centerpiece for redevelopment of North Madison. In accordance with the Lake County Coastal Plan, this plan recommends retrofitting Madison Township Park as a key element in town square node for North Madison. This includes placing more human-scaled amenities at the park, such as a rose garden, playground, fountain and sculpture



garden. Increased safe, public beach access is recommended for the via offshore breakwaters.

LAKE COUNTY METROPARKS

Madison Township is home to five Lake County Metroparks parks; Arcola Creek Park, Hidden Valley Park, Riverview Park, Hogback Ridge Park, and the Erie Shores Golf Course. Together these parks comprise about 870 acres (352 hectares).

Except for Arcola Creek Park and Erie Shores Golf Course, the Metroparks are all located along the Grand River, away from the township's population center in North Madison. The Metroparks serve as regional parks, greenbelts and nature preserves more so than neighborhood and community parks with active recreation.

ACQUIRING NEW PARKLAND

The sprawling nature of Madison Township, and the costs involved in maintaining roads and public safety services, make it challenging to generate and allocate revenue needed to create and operate a larger park system.

Townships in Ohio may now impose impact fees on new development. The township may impose park impact fees or parkland acquisition/park-in-lieu fees from new residential development. Open space needs should be discussed during initial planning meetings between the developer and village for new subdivisions. Agreed upon open space areas should be a part of the overall development plan and ultimately be turned over to the local homeowners association.

State and federal grants may be available to help fund the acquisition of parkland. The township should use every opportunity it has to find and acquire funding for new parkland where appropriate.

School grounds provide valuable opportunities for active recreation. However, there are constraints to their use as community recreational space. With educational use of school grounds as the primary use, schools are often unavailable for general public use.

STANDARDS FOR NEW PARKS

In many new subdivisions in Lake County, open space is often unusable; it may include areas behind houses that serve as an extension of a rear yard, areas under high tension power lines, and other areas that are wasted space. Parks and open space should be accessible, visible, defensible and usable. The following standards are recommended as the basis for siting new mini-parks, neighborhood parks and community parks.

- At least 50% of the perimeter of a neighborhood park, and at least 30% of the perimeter of a community park, must front on a public road. Exceptions could be made for large parks (more than 20 acres, or with more than 500 feet/150 meters of street frontage), and linear parks (rails-to-trails, lakefront corridors, riparian corridors, etc.).
- Excepting trails and riparian corridors, parks must not take the form of narrow strips.
- Convenient pedestrian and vehicular access to parks must be provided.
- Parks and open space must not function as de facto backyards for adjacent residents.
- Parks and open space must be welcoming, and have adequate safety features.
- Retention ponds, wetlands that stay saturated through half the year or more, areas under high tension power lines, traffic islands and medians, and entrance features cannot be used in meeting total park or open space area requirements.
- Linking new parks to existing parks or other desirable land uses (schools, retail areas, cultural or institutional centers) will be encouraged.
- Parks must be improved with water, sanitary sewer (if available), storm sewer (if available) and electrical service. All utilities must be underground.

7.4 Public safety

FIRE DEPARTMENT

Fire protection in Madison Township is provided by the Madison Fire District, which also serves Madison Village. The Fire District has 13 full-time and 21 on-call firefighters.

POLICE PROTECTION

Police protection in Madison Township is provided by a staff of 30 including clerks, office manager, chief of police, sergeants, detectives and patrolmen and women. The Lake County Sheriff Department provides specialized services, such as a SWAT team and bomb squad. Madison Township is also served by the Lake County Crime Lab, a division of the Lake County Prosecutor's Office. The Lake County Crime Lab is funded by a countywide tax levy.

This plan recommends that if a new public safety facility is built, it should be located as close as possible to the population center of the township, near North Ridge Road/US 20. A public safety facility should house both the police department and a fire station. This could create a unified, centrally-located public safety complex.

7.5 Township facilities

Township Hall is located in a former office building on Hubbard Road (2.3 acre) south of Chapel Road. The road department is located on an 16 acre site at on Hubbard Rd., north of Chapel. This plan recommends that if a new town hall is built in the future, it should be placed at a prominent location that would reinforce the identity of the township, and validate the importance of township government. A location fronting or near Madison Township Park, preferably on the shoreline, would be ideal.

Facilities that may include large parking and storage areas, such as vehicle yards, should be located in an area with low visibility, and heavily landscaped and screened.

7.6 Goals and policies

- PF-1 The Madison School District will continue to offer high quality, conveniently located public schools.
- PF-1-01 Work with the Madison School District to ensure potential expansion needs are fulfilled should enrollment projections change.
- PF-2 Parks must not be considered a luxury, but an essential component needed to improve residents' quality of life, maintain and enhance the desirability of residential areas, attract new middle and upper income residents, and offset the visual impact of blighted and abandoned industrial areas. Parkland must be expanded to meet the present and future needs of township residents, serve the recreational needs of residents and visitors, protect irreplaceable natural resources, and preserve the low-density suburban character of the township.
- PF-2-01 Parkland should be distributed evenly throughout the township, with locations and facilities based on the recommendations of this plan.
- PF-2-02 Ensure that new parkland and open space is accessible, defensible, and centrally located, with a sizeable percentage of its perimeter fronting a street. Discourage the use of marginal land, narrow linear tracts, and areas hidden behind back yards for parkland and open space
- PF-2-03 Use every opportunity to find and acquire outside funding to acquire open space and new parkland.

- PF-2-04 Reconfigure Madison Township Park to function as a village square, similar to the square in Madison Village.
- PF-2-05 To the extent feasible, coordinate lakefront park planning in accordance with the Lake County Coastal Development Plan.

PF-3 Urban-quality public safety facilities and services should continue to be offered.

- PF-3-o1 Site a future joint public safety facility, accommodating both police and fire agencies, in the population center of the township. Ensure adequate land is available for future expansion of the facility.
- PF-3-o2 Work with the Fire Department to maintain and improve the fire class rating, to lower insurance costs for residents and businesses.

PF-4 Town government facilities will be improved.

- PF-4-01 Locate the town hall in a visually and symbolically prominent location, should a new facility be built. The site should contribute to creating a sense of place, and play an important role in reinforcing the identity of Madison Township. A preferred site for a relocated town hall is across the street from or near Madison Township Park.
- PF-4-02 Locate township maintenance and yard facilities in an area that is inconspicuous as possible. Arrange yard facilities so equipment, garages, vehicle and raw material storage areas, and heavily traveled internal access aisles are screened from the public right-of-way and nearby residences. Use landscaping and screening to soften the visual impact of such facilities.

8 Utilities

8.1 Introduction

The size and dispersed population of Madison Township make it a challenge to provide the same level of utility services as that enjoyed by more heavily populated townships and municipalities in the Northeast Ohio.

The extension of sewer and water services into a growing exurban area will spawn residential and commercial development. Sewer and water service, and the lack thereof, acts as an unofficial growth control mechanism. Without sewer and water service, the land can only support limited uses: agriculture, low density residential development, and commercial uses that generate little or no wastewater. With sewer and water facilities, higher intensity commercial and residential development can be accommodated. It is critical to ensure that utilities are not extended just for the sake of facilitating growth, but rather to ensure that development takes place in the most suitable location of the township.

The intent of the Utilities element of the Comprehensive Plan is to use urban-level utilities, or the lack of them, to shape the built environment and protect the township's semi-rural character, while still allowing it to prosper.

Please note this is not a capital improvement plan. A capital improvement plan is a budgetary document that links the programming of capital projects, such as public utilities, to the planning goals found in this document.

8.2 Previous comprehensive plans

1963 VILLAGE COMPREHENSIVE PLAN

The 1963 Madison Village Comprehensive Plan included a "community services" element that provided an inventory of and basic policies for water supply, sanitary sewers, storm drainage, public buildings, and private utilities (electric and natural gas distribution).

Recommendations of the 1963 plan related to utilities include:

- Connecting the village water system, at the time drawing its water supply entirely from wells, to lake intake and treatment facilities.
- Consolidating the village sewer system into a larger, then-proposed county sewer system.
- Eliminating storm water from entering the sanitary sewer system.
- Establishing a storm drainage system.

1994 COMPREHENSIVE PLAN

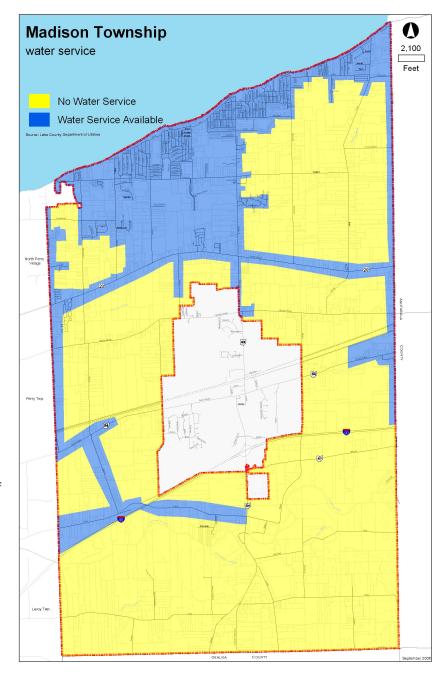
The 1994 comprehensive plan recommended extension of sewer and water lines along Bates Road, following a planned extension from North Ridge Road/US 20 south across Interstate 90; along Dock Road, and along Bennett Road south of Interstate 90. Although this was intended to serve planned industrial areas, there was no warning of the implications such an expansion would have on sprawl and farmland conversion. The plan also recommended absorption of the village sewer system into the larger county system.

8.3 Water service

MADISON TOWNSHIP WATER SYSTEM

The Lake County Department of Utilities provides water service to much of Madison Township. The bulk of water lines are located north of North Ridge Road/US 20, providing service to most streets in North Madison and newer subdivisions in the area. Large trunk lines are located along Lake Road, Chapel Road, portions of North Ridge Road/US 20, and south along **Hubbard Road to** Madison Village. According to the 1990 census, 65.8.8% of housing units in the township are served by the public water system. (Source of water and sewer disposal was not included in the 2000 Census survey.)

In Question 4 of the resident survey, residents were asked to rate the quality of 20 community



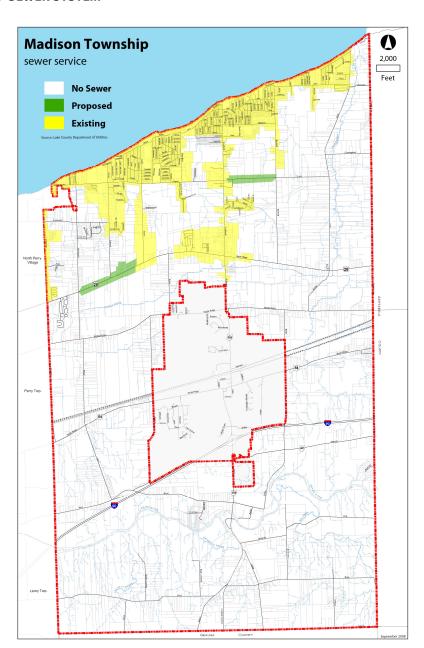
services and attributes. The public water system was given a median rating of 3.36 on a scale of 1 (poor) to 5 (very good). Question 9 of the resident survey asked users to score the importance of 26 various issues that may be addressed in this plan. Among utilities-related issues, water availability scored 4.26 on a scale of 1 (not important) to 5 (most important).

8.4 Sewer service

MADISON TOWNSHIP SEWER SYSTEM

In Question 4 of the resident survey, Madison Township residents were asked to rate the quality of 20 community services and attributes. The public sewer system was given a median rating of 2.76 on a scale of 1 (poor) to 5 (very good). Question 9 of the resident survey asked users to score the importance of 26 various issues that may be addressed in this plan. Among utilities-related issues, sewer capacity lines scored 4.04 on a scale of 1 (not important) to 5 (most important).

Sewage is processed at the Madison Wastewater Treatment Facility on Vrooman Road.



DEVELOPMENT WITHOUT SEWER SERVICE

The lack of sewer and water service in an area can keep the overall capacity for development low, and help in part to preserve an exurban and rural character many residents find important.

Unsewered commercial districts in rural and exurban communities are often dominated by vehicle-related uses, such as auto and truck dealers, tire stores, gas stations, auto repair and body shops, and heavy equipment rental. While appropriate and viable businesses mechanical commercial uses generate little wastewater, so the lack of a sewer system is not a critical factor in their site selection. However, the grouping of these uses in the area (US 20) may yield an inaccurate impression of the corridor to travelers and prospective residents.

Federal Environmental Protection Agency (EPA) regulations prohibit package plants that could otherwise serve limited commercial uses, because they could harm the sensitive watershed areas in eastern Lake County. Most commercial uses desired by town residents, such as supermarkets, mid-end retail development, and sit-down restaurants, create more wastewater than what can be handled by a septic system.

A lack of sewers also limits potential industrial uses – and the accompanying property tax revenue – to a few that generate little wastewater.

THE EFFECTS OF SEWER AND WATER UTILITY EXPANSION

In drafting the US 20 Corridor Plan, utility service was considered the second most important issue by those participating in a dot sticker survey, and it was a frequent topic of discussion at corridor planning committee meetings. The extension of sewer and water services into a previously underserved area can increase the value and development capacity of a property. Sites served by sewer lines can better accommodate middle-end retail and restaurant development – uses that that generate more wastewater than what can be handled by a septic system – and make them less viable locations for low-end commercial and semi-industrial uses.

However, the benefits of sewer and water service carry a price. Premature or overly aggressive expansion, though, can result in an undesirable and unsustainable development pattern that can harm the semi-rural character of the township, accelerate conversion of farmland to residential use, and promote development that conflicts with the land use goals of this plan. The availability of sewer service outside of more intensively populated areas would encourage a pattern of leapfrog and strip development, because the lack of sewer service would no longer be a barrier to developing a property; sewer service makes intensive commercial and retail development feasible at any location.

Serving as a growth control mechanism, it is important that the location of new and upgraded utility services be carefully planned and considered so it does not encourage premature or inappropriately located commercial and residential development.

MADISON FACILITIES PLAN AND UTILITY EXTENSION COORDINATION

The 1998 Madison Facilities Plan, adopted by the Lake County Utilities Department, proposes an expanded network of sewer lines throughout the township, with lines following all north-south major and minor roads, and following US 20 except for a section extending about 2000' west of Bennett Road.

The Madison Facilities Plan has no timeline for sewer expansion. The plan indicates the diameter of future sewer lines, if they are to be built. According to Utilities Department policy, sewer lines are not extended or upgraded in anticipation of future development, but rather as the demand for service warrants. Developers or property owners must request and pay for new sewer lines.

The need for better coordination between land use and sewer plans will be necessary in the future to prevent premature sewer expansion, and thus minimize leapfrog development, reduce urban sprawl, and make this comprehensive plan a more effective tool for controlling growth.

8.5 Electricity service

First Energy (formerly CEI) provides electrical service to the entire village.

Most electric utility lines in the township are above ground, strung on poles placed in the public right-of-way. Utility lines are buried in the newest subdivisions. Undergrounding existing utility lines is expensive; more so in low-density exurban communities. Nonetheless, the township should work towards a long-term goal of placing all utility lines underground. New electrical substations should be carefully placed, and well-designed and screened so they are visually unobtrusive.

First Energy has not announced any plans to provide broadband over power line (BPL) service in Madison Township or Lake County.

Question 9 of the resident survey asked respondents to score the importance of 26 various issues that may be addressed in this plan. Among utilities-related issues, overhead utility lines scored 3.48 on a scale of 1 (not important) to 5 (most important). Question 10 offered statements regarding the built environment and other qualities of the village, and asked respondents to rate how strongly they agreed or disagreed with them. There was general agreement with the statement "Overhead utilities should be placed underground" (+0.66, median +1, mode +0).

8.6 Natural gas service

Much of Madison Township, mainly areas in North Madison and newer subdivisions north of Interstate 90, is provided with natural gas service by Dominion Energy.

According to 2000 census data 1,523 housing units (58%) in Madison Township are heated with natural gas provided by a central utility; the remainder are heated with bottled gas, electricity, fuel oil and wood,

8.7 Telephone and ADSL broadband Internet service

Telephone service in Madison Township is provided by Windstream Communications (formerly Alltel Ohio/Western Reserve Telephone Company). DSL broadband Internet service is available in much of the township. Service availability depends on proximity to central switching offices.

Telephone lines are above ground in parts of the township where electrical lines are also above ground.

8.8 Cable television and cable broadband Internet service

Time Warner Cable provides cable television and high speed Internet access throughout Madison Township. Cable lines are above ground in areas of the township where electrical lines are also overhead.

8.9 Goals and policies

Each primary paragraph (in bold type) is a statement of a goal. The subparagraphs are policies for implementing the goal. Some goals and policies related to land use are found in other elements.

- UT-1 Water and sewer systems will be adequate to meet the demands of the community, but not expanded in a manner that results in undesirable land use patterns or premature development.
- UT-1-P1 Discourage unnecessary or premature expansion of sewer services. Critically review expansion and upgrade of sewer service in low priority expansion and improvement areas outside of developed areas. Consider the possible harmful effects of sewer expansion in agricultural areas. Phasing of sewer expansion shall follow the future land use pattern established in the comprehensive plan, unless sewer service will remedy groundwater contamination and other health problems.
- UT-1-P2 Work with the Lake County Utilities Department and other agencies and officials to support better coordination of sewer plans with underlying land use plans. Work with the Lake County Utilities Department when the Madison County Facilities Plan is updated.
- UT-1-P3 Maintain water service. Conduct regular inspection and routine maintenance of water lines. Ensure facilities are available to serve new development, and that water pressure and overall system reliability is not reduced with the addition of new customers.
- UT-1-P4 Encourage higher intensity infill development which takes advantage of existing sewer and water system capacity.
- UT-1-P5 Require sewage gravity collection system connections for all new development including single-family residential development in submissions, unless otherwise consistent with this comprehensive plan and its future land use map.

UT-2 The visual impact of wired utilities will be decreased.

- UT-2-P1 Encourage utility companies to work with property owners and lessees when siting utility facilities.
- UT-2-P2 Require undergrounding of all wired utilities, such as electricity, telephone, and cable television service, in all new subdivisions, retail and office centers, and industrial parks.
- UT-2-P3 Require undergrounding of existing overhead utility lines when commercial development occurs on the site.
- UT-2-P4 Work towards a long-term goal of undergrounding all wired utilities in the township.
- UT-2-P5 Require visual screening for new utility substations. Work with utility companies to screen existing utility substations.

UT-3 Telecommunications infrastructure will remain up-to-date.

- UT-3-P1 Work with telephone and cable television companies to ensure the township is provided with the same level and quality of service and technology as in urban areas.
- UT-3-P2 Work to ensure high-speed Internet access is available to all residents and businesses in the township.

9 Economic development

9.1 Introduction

Today Madison Township is an exurban community with an economy rooted in nurseries, and increasingly, retail and service businesses. In recent years, with increased residential development, the role of agriculture has diminished. Resident opinions are split regarding commercial and industrial development; some favoring it, because it will shorten long drives for daily errands and provide a boost to the underlying tax base; others opposing it because of the threat it could pose to the valued small town character of the community.

The Economic Development element identifies policies and strategies that will address the well being of Madison Township – its communities, businesses and residents – in a local and regional economic context. It includes analysis of the local economy assessing its strengths and weaknesses in terms of the scope and character of the local employment base, the relationship between the local labor force and local opportunities for employment, and an assessment of current and future needs of the community.

The intent of the Economic Development element is to plan for increasing the employment and tax base and the diversity of retail services in the township, while ensuring the semi-rural character of the community is not irreparably harmed.

9.2 Economic influences

Lake County and Madison Township are influenced by overall economic trends in northeast Ohio. Locally, the agricultural landscape, Interstate 90, the lakefront and Madison Village are directly related to the economy of the township. Most day-to-day needs are met by businesses located along the North Ridge Road/US 20 corridor in Madison Township, and retail centers elsewhere in Lake and Ashtabula counties. Businesses in the core of Madison Village are less comprehensive, but township residents often take advantage of the retail and dining options along Main Street.

The amount of retail leakage in Madison Township – the difference between actual and potential retail sales in a community, or the amount of retail sales lost to other communities – is high, although the exact amount cannot be determined without a detailed retail study. The amount of retail leakage is shrinking as large national retailers expand into the township. However, most new retailers cater to lower to middle-income demographics. Madison Township residents satisfy their needs for mid-end to upper-end clothing, electronics, appliances and other goods in Mentor and other retail centers in Cleveland's eastern suburbs.

Major barriers to retail, commercial and industrial development include the low number of "rooftops" or residents, and the limitations of sewer service. Being located on the fringe of the Cleveland metropolitan area makes Madison Township a less-than-ideal location for general office uses. However, offices for professional and medical uses that serve the local population and residents of surrounding villages and townships are feasible.

There is only a very small manufacturing base in Madison, mostly located in the village. Perfection Corporation, a manufacturer of mechanical joining products for natural gas and propane gas distribution systems, announced they will be relocating to North Carolina. Chemmasters is a manufacturer of specialty construction products to repair, and protect concrete and masonry. Semi-industrial uses such as machine shops, auto body shops, excavating firms, HVAC contractors, and similar businesses are not uncommon in Madison Township.

The nursery industry remains the anchor of Madison Township and Lake County agriculture. The 1998 Census of Horticultural Specialties counted 68 horticultural operations in the county, generating \$59,153,000 in total sales, and \$54,656,000 in wholesale sales. The Nursery Growers of Lake County have tallied over 100 nurseries in Lake County, generating an estimated \$90,000,000 in annual wholesale sales. The Nursery Growers of Lake County claim the nursery industry employs 2,700 full and part time workers; this statistic includes nine nurseries outside of Lake County.

COST OF COMMUNITY SERVICES

According to cost of service studies conducted by municipalities throughout the United States, the cost of providing services for residential uses is greater than the property tax revenue they generate. Commercial and industrial uses pay more in taxes than the cost of services they use, essentially subsidizing residential uses and decreasing their tax burden.

Developed by the American Farmland Trust in 1990, cost of community service studies are being completed by communities throughout Ohio. These studies allow community leaders to evaluate how their revenues compare with their expenditures.

Table 9.1 Cost of service studies in Ohio			
	Cost of services us	sed for every \$1 pa	id in property tax
Community	Residential	Commercial and industrial	Agricultural
Madison Township / Lake County (1993)	\$1.40	\$0.25	\$0.30
Madison Village / Lake County (1993)	\$1.67	\$0.20	\$0.39
Hocking Township / Fairfield County (1999)	\$1.10	\$0.27	\$0.17
Liberty Township / Fairfield County (1999)	\$1.15	\$0.51	\$0.05
Union Township / Ross County (1998)	\$1.00	\$0.31	\$0.60
Huntington Township / Ross County (1998)	\$1.01	\$0.38	\$0.19
Madison Township / Lake County (2007)	\$1.24	\$0.33	\$0.30
(Prindle 1999, 2000; American Farmland Trust 1	993)		

The outcome is a ratio of the amount of money needed to provide public services (fire, police, education, community centers, and so on) for every dollar collected in property taxes.

The results of these studies support the claims presented by smart growth advocates, farmland preservation taskforces, and local citizens; conventional suburban residential development requires higher financial resources in the long term to provide public services. Table 9.1 illustrates the similar results in Madison Township, Madison Village, and four other Ohio townships that conducted cost of service studies.

For every dollar in property taxes paid by residential property owners in Madison Township, \$1.24 in services is required. Services provided to residents are subsidized by commercial and industrial property owners; for every dollar they pay in property taxes, they require 33 cents in services. Nursery owners also subsidize services to residents; for every dollar they pay in property taxes, agricultural uses require 30 cents in services.

Current and future leadership should carefully evaluate the long-term impacts of current levels of services provided, and the impact of residential development on the village revenue stream without adequate commercial and industrial development to offset it.

Note: At the time this plan was prepared (Fall 2008), draft research project indicated the local winery industry generated approximately \$30 million in economic impacts.

9.3 Desired businesses

A survey conducted as part of the planning process for the US 20 Corridor Plan for Madison Township asked respondents to score the desirability of different types of businesses and land uses that might be found along the corridor. Sit-down restaurants, nurseries, offices, banks, grocery stores, and small-scale retail scored at the top, while low-end commercial and semi-industrial uses such as vehicle and engine repair and service, auto parts stores, heavy/construction equipment sales and rental, auto, truck and RV sales, contractor yards, mobile home parks and mobile home sales ranked at the bottom.

A recurring theme of written survey responses and public meeting comments, in Madison Township, Madison Village and in surveys conducted in nearby communities, is that "there's no place to shop." Most consumable goods such as groceries and drugs could be found in Perry and Madison Townships, but the options for clothing, furniture, appliances, and other durable and dry goods are extremely limited. Retail uses are limited in Madison Village; small grocery and convenience stores and antique and gift stores predominate. The selection of restaurants is also very limited; either small diners with limited hours, taverns with a kitchen, or fast food. There are no movie theaters, miniature golf courses, arcades, bowling alleys, or other outlets for entertainment. Low-end uses such as dollar stores and used car dealers are common in Madison Township.

Retailers often have very firm ideas about what is considered an ideal location, and these ideas do not necessary mesh with what a community has to offer. While a municipality or township has sites where it would like to see a store or restaurant locate, the retailer has its own ideas about where it would like to go. More often than not, these sites are not the same.

Retail and restaurant site selection specialists often use a formula to determine whether a market is a viable location for a store or restaurant. Criteria determining an ideal location are mostly quantitative, and usually include the following:

- Population living in a certain radius (mileage and driving time).
- Percentage of families versus singles in a certain radius.
- Average family and household income in a certain radius.
- Average age of the population in a certain radius.
- Cumulative income of all people in a certain radius.
- Education level in a certain radius.
- Number of jobs in a certain radius.
- Traffic volume at a location.
- Utility availability at a location.
- Proximity of other mid- and high-end retail development (positive).
- Proximity of low-end commercial development (negative).
- Property size and geometry.
- Potential return on investment.

Table 9.1 US 20 Corridor Plan survey: desired us	es									
		Score (-2 strongly oppose to +2 strongly support)								
		ceived	Resid	ential	Business owners/mgers					
Business type or land use		veys								
	Median score	Standard deviation	Median score	Standard deviation		Standard				
Sit-down restaurants	1.20		1.23	1.07	1.00	1.39				
Nurseries	0.70	1.27	0.77	1.23	0.08	1.42				
Entertainment (movie theaters, etc.)	0.78	1.28	0.76	1.28	1.00	1.21				
Medium-scale retail and commercial	0.73	1.23	0.72	1.24	0.84	1.23				
Small-scale retail and commercial	0.73	1.10	0.70	1.10	0.99	1.03				
Grocery stores	0.70	1.22	0.69	1.22	0.73	1.26				
Professional and medical offices	0.66	1.08	0.64	1.07	0.84	1.17				
Banks	0.43	1.10	0.41	1.10	0.61	1.09				
Large big box stores	0.39	1.60	0.39	1.59	0.33	1.70				
Medium big box stores	0.41	1.43	0.38	1.43	0.60	1.39				
Information technology	0.36	1.01	0.33	0.99	0.59	1.10				
Light industry	0.29	1.28	0.25	1.27	0.60	1.28				
Single family houses	0.17	1.34	0.18	1.34	0.05	1.39				
Gas stations	0.17	1.15	0.13	1.16	0.47	1.02				
Personal services	0.13	1.07	0.09	1.08	0.43	0.99				
Convenience stores	0.00	1.22	-0.03	1.22	0.28	1.20				
Hotels and motels	0.01	1.35	-0.05	1.34	0.54	1.37				
Auto parts stores	-0.09	1.11	-0.11	1.11	0.11	1.08				
Fast food restaurants	-0.10	1.26	-0.12	1.25	0.04	1.35				
Vehicle and engine repair and service	-0.19	1.17	-0.22	1.16	0.06	1.22				
Townhouses	-0.28	1.29	-0.29	1.28	-0.17	1.31				
Auto, truck and RV sales	-0.52	1.17	-0.56	1.15	-0.16	1.27				
Heavy equipment sales and rental	-0.64	1.15	-0.69	1.14	-0.21	1.21				
Contractor yards	-0.68	1.11	-0.71	1.09	-0.38	1.23				

(Madison Township US 20 Corridor Study, Lake County Planning Commission 2005)

Apartment complexes

Mobile home sales

Mobile home parks

Each of these criteria carries a different weight, depending on the type of business. A bookstore may place a greater emphasis on the education and income in an area, while chain restaurants often look at the employment base in the area, so they can profit from lunch as well as dinner business. Sewer service is more important for uses that generate plenty of wastewater, such as sit-down restaurants.

-0.71

-0.85

-1.19

1.21

1.10

1.11

-0.73

-0.88

-1.21

1.20

1.08

1.09

-0.49

-0.60

-1.00

1.33

1.23

1.24

For example, despite a lack of competition, Starbucks is unlikely to locate in Madison Township or surrounding communities until after stores have been opened in other locations the chain considers more lucrative. The chain prefers locations with a high percentage of well-educated residents in their 20s and 30s, a large nearby employment base of office workers, or along a busy commuting route to an office district.

Lack of competition in the area, a lack of retail development, vocal resident demand, and a positive "gut feeling" are, unfortunately, only considered very minor factors in site selection, if at all. A surplus of commercial-zoned land, property taxes and leniency of zoning and architectural regulations are usually not considered at all.

All businesses seek a high potential return on investment. A store may make a profit in Madison Township, but if there is the opportunity of a greater return in another area, the chain

will locate an outlet there instead, not developing in the township until most of the other more lucrative locations have been developed.

The mantra of commercial developers is "retail follows rooftops." The population of eastern Lake County is growing at a slow pace. Among site selection specialists, the small, low-density population base of the area is a liability compared with more populated areas. The presence of a new Wal-Mart store in Madison Township may attract the attention of national retailers scouting for new store locations. The middle-class, blue-collar-leaning demographics of the surrounding area is highly sought-after by mid-end retail chains such as Home Depot, Michael's and Old Navy. However, new retail uses will likely locate closer to the new Wal-Mart.

New retail businesses will not be attracted to Madison Township by handouts and incentives, low taxes, or lenient zoning or signage regulations. Instead, they will look at the population within an easy driving distance of the store, the average income of those living nearby, high traffic volumes, utility availability, and the prospect of a high return on their investment compared to other possible locations.

Despite the challenge in attracting desired businesses, community officials can be proactive in promoting the North Ridge Road/US 20 corridor, Madison Village center and the Exit 212 area as an ideal site for retail development. Township officials should also working closely with land owners, and network with commercial developers in the Cleveland area, and in cooperation with village officials.

9.4 The Lakefront

The Lake Erie shoreline is a natural, social and *economic* asset for the Township. Research from other Great Lakes communities' clearly validates the importance of protecting the lakefront and creating usable beaches and marinas that will attract people and ultimately outside investment. Public investment in facilities and infrastructure in areas such as Stanton and Township Parks will yield private landside investment in surrounding areas. This includes lodging, restaurants, retail and so on. Families are currently looking to vacation to areas closer to home due to rising energy cost. Madison Township should capitalize on this opportunity.

The Lake County Coastal Plan provides a conceptual framework or guide for the revitalization of Madison's lakefront. Creating destination based amenities should be encouraged in future planning and zoning decisions at the local level.

9.5 Incentives for economic development

Retailers establish a business at a location because a market exists for a product or service they offer. Incentives are not required to lure a new retail business, and few government agencies in the United States offer direct incentives to retailers. However, they may fund general improvements such as streetscape beautification and new infrastructure, to create an environment that is more attractive to retail businesses. Tax increment financing (TIF) districts, where improvements are funded with bonds that are paid back from the revenue of increased property taxes directly resulting from those improvements, are also used to fund improvements that will attract retail development.

Use of incentives and other government assistance, such as property acquisition through eminent domain, should not be directed at specific retail businesses. Such incentives amount to a local government subsidy of a retailer that will compete with established merchants, giving it an unfair advantage in the marketplace. Incentives should not be offered to national retailers that would probably be established in the community even if such a benefit were not

offered. Incentives should also not be offered for retail projects that may hurt shopping districts in surrounding communities.

The majority of township residents want more commercial development, but it is important not to rush to get it. The intent of attracting more retail and commercial uses to the township should be to provide greater convenience to residents that normally have to travel long distances for day-to-day needs, and diversify the tax base. Subsidizing commercial and industrial uses by offering tax abatement or other financial incentives may attract some businesses in the short term, but long-term use of such benefits would be contrary to the intent of attracting them to begin with. The township should not compete with the village to attract retail and commercial uses.

9.6 Smart growth and economic development

Recognizing the importance of economic development issues and their role in smart growth, in 1997 the Local Government Commission developed a set of 15 principles specifically focused on economic development. The Ahwahnee Principles for Economic Development promote the following.

- 1. Integrated approach. Government, business, education, and the community should work together to create a vibrant local economy, through a long-term investment strategy that encourages local enterprise, serves the needs of local residents, workers, and businesses, promotes stable employment and revenues by building on local competitive advantages, protects the natural environment, increases social equity, and is capable of succeeding in the global marketplace. For the village, this means an emphasis on small, locally owned businesses that offer middle-class and higher wages, which produce a product or offer a service that meets a need not just locally, but regionally and nationally.
- **2. Vision and inclusion**. Communities and regions need a vision and strategy for economic development according to the principles. Visioning, planning and implementation efforts should continually involve all sectors, including the voluntary civic sector and those traditionally left out of the public planning process. The Comprehensive Plan should be a start for a larger economic development planning effort in the village, which includes businesses, community officials, and residents.
- **3. Poverty reduction.** Economic development efforts should be targeted to reducing poverty, by promoting jobs that match the skills of existing residents, improving the skills of low-income individuals, addressing the needs of families moving off welfare, and insuring the availability in all communities of quality affordable child care, transportation, and housing.
- **4. Local focus.** Because each community's most valuable assets are the ones they already have, and existing businesses are already contributing to their home communities, economic development efforts should give first priority to supporting existing enterprises as the best source of business expansion and local job growth. Luring businesses away from neighboring communities is a zero-sum game that creates no new wealth in the regional economy. Community economic development should focus instead on promoting local entrepreneurship to build locally-based industries and businesses that can succeed among national and international competitors.
- **5. Industry clusters.** Communities and regions should identify specific gaps and niches their economies can fill, and promote a diversified range of specialized industry clusters drawing on local advantages to serve local and international markets. The manufacturing sector of Lake County includes a growing cluster of businesses related to aircraft parts, medical equipment, and precision machinery. This niche could form the foundation for enhancing a

manufacturing-based local economy, and compensate for the loss of heavier industrial operations. New white-collar jobs based on engineering and research in specialized industry sectors can complement manufacturing-based jobs, and provide a more diversified, recession-resistant local economy.

- **6. Wired communities.** Communities should use and invest in technology that supports the ability of local enterprises to succeed, improves civic life, and provides open access to information and resources. High-speed broadband Internet service, and universal wi-fi connectivity, will make the village more attractive to home-based businesses. Many exurban communities throughout the United States, although few in Ohio are considering community wi-fi networks.
- **7. Long-term investment.** Publicly supported economic development programs, investments, and subsidies should be evaluated on their long-term benefits and impacts on the whole community, not on short-term job or revenue increases. Public investments and incentives should be equitable and targeted, support environmental and social goals, and prioritize infrastructure and supportive services that promote the vitality of all local enterprises, instead of individual firms.
- **8. Human investment.** Because human resources are so valuable in the information-nation age, communities should provide lifelong skills and learning opportunities by investing in excellent schools, post-secondary institutions, and opportunities for continuous education and training available to all. Vocational education and skills training should be continued on a regional basis, creating a pool of talent that would be an incentive for employers to locate in the area.
- **9. Environmental responsibility.** Communities should support and pursue economic development that maintains or improves, not harms, the environmental and public health. Development should respect and maintain the environmental well-being and semi-rural character of the township; watersheds, tree cover, air quality and lack of noise and light pollution.
- **10. Corporate responsibility.** Enterprises should work as civic partners and stewards, contributing to the communities and regions where they operate, protecting the natural environment, contributing to civic affairs, and providing workers with good pay, benefits, opportunities for upward mobility, and a healthful work environment.
- **11. Compact development.** To minimize economic, social, and environmental costs and efficiently use resources and infrastructure, new development should take place in existing urban, suburban, and rural areas before using more agricultural land or open space. The use of vacant land closer to the village center rather than existing nursery land is strongly encouraged.
- **12. Livable communities.** To protect the natural environment and increase quality of life, neighborhoods, communities and regions should have compact, multidimensional land use patterns that ensure a mix of uses, minimize the impact of cars, and promote walking, bicycling, and transit access to employment, education, recreation, entertainment, shopping, and services.
- **13. Center focus.** Communities should have an appropriately scaled and economically healthy center focus. At the community level, a wide range of commercial, residential, cultural, civic, and recreational uses should be located in the town center or downtown. Concentrating development in North Madison, the Madison Village center, or a traditional town center, if developed, meets this principle.
- **14. Distinctive communities.** Having a distinctive identity will help communities create a quality of life that is attractive for business retention and future residents and private

investment. The village must work to reinforce its sense of uniqueness, attractiveness, history, and cultural and social diversity, and a strong local sense of place, keeping it distinct from other exurban communities.

15. Regional collaboration. Since industries, transportation, land uses, natural resources, and other key elements of a healthy economy are regional in scope, communities and the private sector should cooperate to create regional structures that promote a coherent metropolitan whole that respects local character and identity.

This plan recommends that all economic development efforts conform to the Ahwahnee Principles for Economic Development and smart growth principles in general.

9.6 Goals and policies

Each primary paragraph (in bold type) is a statement of a goal. The subparagraphs are policies for implementing the goal. Many goals and policies related to utilities can be found in the throughout the plan.

- ED-1 As appropriate, smart growth principles will be part of the foundation for economic development in Madison Township.
- ED-1-p1 Use sound long-term planning principles, including concepts embodied in the Ahwahnee Economic Development Principles, to guide economic development in the township.
- ED-1-p2 Ensure economic development efforts directed towards commercial or retail development have the intent of protecting and reinforcing a distinctive sense of place, and creating or maintaining a vibrant community center.
- ED-2 Strictly controlled commercial development will be encouraged to serve the needs of local residents and create a balanced tax base.
- ED-2-p3 Discourage commercial development that tends to be visually or environmentally disruptive by its very nature; i.e. preferences towards large or tall signs, intensive lighting required, large impermeable surface areas needed, idling vehicles inherent as part of the use, and so on. (See Land Use element)
- ED-3-p3 Ensure industrial development, if permitted, is located where it does not disrupt traffic patterns or disturb rural character. (See Land Use element)
- ED-3 Encourage agri-tourism to promote economic development, help nursery and agricultural uses remain economically viable and competitive with non-agricultural uses of the land, and maintain the semi-rural character of the township.
- ED-3-p1 Work with local farmers, tourism associations, agricultural trade associations, the local Cooperative Extension agency, and other agencies to develop coordinated programs that promote agri-tourism. (See Land Use element)
- ED-3-p2 Limit regulation of farm improvement projects and routine agricultural operations only to the extent to protect health, safety and welfare. (See Land Use element)
- ED-3-p3 Remove barriers in the zoning resolution that prohibit agri-tourism related land uses. (See Land Use element)

ED-4	Economic development efforts will be primarily market-oriented, and not driven
	by incentives.

- ED-4-p1 Use of incentives and other government assistance, such as property acquisition through eminent domain, should not be directed at specific retail businesses.
- ED-4-p2 Discourage subsidizing commercial and industrial uses with tax abatement or other financial incentives that would place the burden of tax revenue generation on residential uses and existing businesses.
- ED-4-p3 Discourage the granting of zoning variances to permit development that is visually intrusive, or which would harm the sense of place and semi-rural character of the township, for the sake of attracting a business or the community.

10 Natural resources

10.1 Introduction

Natural and environmental resources help define the character of the township, support the natural systems that provide for wildlife and a healthy environment, provide recreational and educational opportunities, and form the basis of its economy. This begins with unique soils, Lake Erie, stream valleys and watersheds, remaining wooded tracts, and species habitats. At the same time, the township's natural resources must be safeguarded from adverse impacts of urbanization. This includes flooding, air and water pollution, groundwater contamination, noise, light and glare, and visual clutter from signs and utility structures.

The Natural Resources element, addresses rivers, streams, watersheds, woodlands and urban forestry, air quality, noise pollution and light pollution, to ensure that the natural features that define Madison Township are protected and enhanced. The intent of this element is to promote the conservation and integration of natural systems and resources with a growing residential population, and reduce the impacts of man-made development on the community, property and lives of the residents.

10.2 Lake Erie

Lake Erie, the great body of fresh water forming Ohio's north coast, is the fourth largest of the five Great Lakes and the 12th largest freshwater lake in the world.

The common perception may be that Lake Erie is a timeless entity, formed in the distant past and as ancient as any visible rock or landscape, and a feature that will remain essentially unchanged for eternity. Geologists, however, view Lake Erie in its present form as a very recent feature – less than 4,000 years old -- that is destined for a relatively short life, geologically speaking. The known history of the lake and its predecessors has taken place in the last 14,000 years.

The presence of Lake Erie was downplayed in the 1960 Lake County Comprehensive Plan. The future land use map of the 1960 plan envisioned the Lake Erie coastline as being an area lined with medium-to-high density residential uses and heavy industry, with only a few areas left untouched by development.

The scale of development predicted in the 1960 plan never took place. Today, much of the land along the lakefront remains undeveloped. Residents and businesses are increasingly recognizing that Lake Erie is a rich resource, providing both a natural habitat with few equals and a catalyst for future sustainable economic development – if it is carefully managed. The Lake County Planning Commission, citizen groups, local government agencies and the State Department of Natural Resources have been working to avoid and reverse the mistakes of the past, and maintain a healthy balance between the wise use and thoughtful protection of the resources of coastal Lake Erie.

The Eastern Lake County Coastal Comprehensive Plan was completed in August 2003. The study region of this includes an area 1000 feet shoreward of Lake Erie between the Lake-Ashtabula county line and the City of Mentor-Painesville Township boundary. The report inventories existing conditions and current and proposed projects, and also examines current and projected needs within the study area.

A second, more detailed study, The Lake County Coastal Development Plan was completed in 2005. In summary, the plan describes the overall coastal environment and documents a plan in response to this environment resulting in an accessible, economically viable and locally relevant Lake County coastline. The creation of the plan is intended to:

- Lead to enhanced grant award leverage created by a regional effort.
- Serve as a catalyst for landside planning of projects at the local or regional level.
- Facilitate the selection of specific coastal projects for implementation.

Although the plan deals mainly with coastal area development, it makes the following recommendations regarding natural resources.

- Local governments should assess their coastal areas, and determine what they need to protect.
- Parkland acquisition costs should include funding for shoreline stabilization projects.
- Develop shoreline protection projects.
- Restore the Fairport Harbor breakwall.
- Overall protection of historic and cultural sites, beaches, scenic views, natural resources, natural features and recreational opportunities, as well as the lake itself.
- Control non-point source pollution and stormwater runoff.

EROSION

Although it has been millennia sine the end of the Ice Age, the lake and coastline continue to be shaped through the natural process of erosion.

Lakeshore erosion is the predominant geologic hazard at certain locations in Madison Township. Steep bluffs are formed where the waves impact the land. The height of the bluffs varies in the township. High bluffs along the Lake Erie shore are also subject to other natural processes. The most dramatic process is called slumping. High bluffs fail naturally, and through time will eventually attain a natural stable angle of repose, or a stable

That's a lot of H•O

The Great Lakes contain about 1/5 of all the freshwater on the planet. They contain 95% of the nation's supply of fresh water.

If all the water within the Great Lakes was spread evenly across the United States, the country would be covered under 9.5 feet (3 meters) of water.

Sizing up the Great Lakes

The Great Lakes extend 575 miles (925 kilometers) from the northern tip of Superior to the southern shore of Lake Erie, a spread of eight degrees in latitude.

From east to west, the Great Lakes extend more than 800 miles.

The Great Lakes have more than 10,000 miles (16,000 kilometers) of shoreline, longer than the entire Atlantic and Pacific coasts of the USA.

Lake Erie - Our Great Lake County, Ohio

Lake Erie is the 12th largest freshwater lake in the world.

Lake Erie has 871 miles (1,400 kilometers) of shoreline. There are 262 miles (421 Kilometers) of shoreline in Ohio and at least 26 islands in the western basin of Lake Erie. The exact number varies depending on water levels.

Lake Erie is the most southern, shallowest, warmest and most biologically productive of all the Great Lakes.

Lake Erie supplies more fish for human consumption than the other four Great Lakes combined. The Lake Erie walleye sport fishery is widely considered the best in the world.

Lake Erie's deepest point is 210 feet (64 meters). Lake Erie has three basins: the western basin includes the islands area, the central basin extends from the islands to Erie, PA, and Long Point, Canada, and the eastern basin extends from Erie, PA, to the east end of the lake. The western basin averages 80 feet (24 meters) in depth.

Lake Erie is 241 miles (387 kilometers) long with a widest point at 57 miles (92 milometers) and the narrowest point at 28 miles (45 kilometers). It covers 9,910 square miles (25,667 square kilometers) and drains 30,140 square miles (78,062 square kilometers).

Ninety-five percent of Lake Erie's water comes from the upper Great Lakes via the Detroit River.

A drop of water entering Lake Erie from the Detroit River will take only two and a half years to reach Niagara Falls. Compare this short time to Lake Superior where a drop of water will take 191 years to move out of the lake.

Source: Lake Erie Coastal Ohio Fact Sheet

slope. As the bottom of a bluff is cut away by erosion, the weight of bluff materials will cause the face of the bluff to break free. When this happens, large blocks of bluff material will

collapse and fall into the lake. Waves will scour away silts and clays, leaving behind sand and stone. This is a natural beach-building process. The loss of sand caused by entrapment, groundwater seepage, surface water runoff, and human activity or changes in land use that would alter the hydrology or vegetation on a site can accelerate slumping.

Sand loss also has an effect on the slope beneath the water. Since beaches in the study area are narrow, there is little sand on the lake bottom to absorb wave energy. As a result, waves excavate the lake bottom close to shore. As near-shore depths increase, the amount of wave energy increases, thus increasing erosion along the shoreline.



Previous efforts to slow or stop erosion have met with limited results. Excessively long groins trap sand that would have been deposited on the downdrift shore, making those areas more susceptible to erosion; there is less sand available to buffer wave action. Owners of lakefront property in the Lake County area have often taken inappropriate measures to stop erosion, such as dumping construction debris and large objects on the beach. However, dumped material will often get stirred up during a storm, gouging out more of the shoreline and accelerating slumping.

The US Army Corps of Engineers recommends several low-cost methods of protecting shoreline property. Beach fill, creating gently sloped beaches, will cause incoming waves to beak and use up their energy before reaching inland areas. Perched beaches use low retaining walls to trap sand, creating a new beach for recreation and shore protection are also suitable protection measures.

Well-designed offshore barrier islands or breakwaters dissipate the energy of incoming waves, trapping sand behind them without concentrating destructive wave action elsewhere. This is recommended for Stanton Park and Township Park.

Groin fields trap and retain sand, nourishing the beach compartments between them; however, they should be designed in a way where they will not cause unacceptable erosion of the downdrift shore. The natural sediment transport is west to east. Inappropriate protection measures often deprive neighboring properties to the east sand needed to maintain natural protection that a beach provides. Revetments are engineered structures placed on steeper banks or bluffs in a way to absorb the energy of incoming waves, without redirecting wave energy to unprotected areas. This plan recommends the off-shore barrier protection strategy for future erosion control and beach creation exercises in Madison Township.

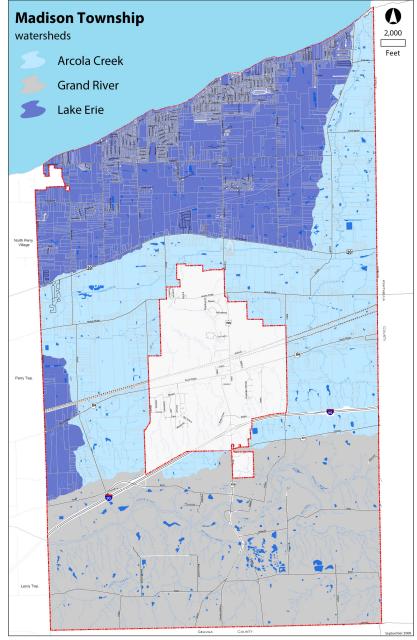
10.3 Watersheds, waterways and wetlands

WATERSHED

A watershed is an area designating where water will flow. If it rains along the Lake Erie shoreline, the water will flow directly into Lake Erie. If it rains in the center of the Village, water will flow into a stream that leads to Arcola Creek, and eventually enter Lake Erie. Madison Township is situated in three major watersheds; Lake Erie, Arcola Creek and the Grand River.

EFFECTS OF SUBURBAN DEVELOPMENT

Suburbanization in a watershed can have adverse effects on streams and receiving waters. Effects include increases in flooding, stream bank erosion, and pollutant transport. Development results in surfaces such as rooftops.



roads and parking lots, which render much of a watershed impervious to rainfall. Rainfall is unable to percolate into the soil, and instead is converted into runoff, which can overwhelm the existing drainage system of natural stream tributaries. Thus, drainage improvements, such as curbs, channels, or storm sewers, must be constructed to direct and convey the runoff through the watershed.

At the receiving end of the stormwater conveyance network, a stream channel must adapt to new hydrologic conditions. The primary adjustment is through channel widening, which occurs through stream bank erosion. Stream banks become undercut and slump into the channel. Trees that once provided bank stability become exposed at the roots and are more likely to fall, further destabilizing adjacent land. Large quantities of sediment eroded from

stream banks remain in the channel as shifting deposits of mud and sand. This can have a dramatic impact on habitats of fish, mussels and aquatic insects.

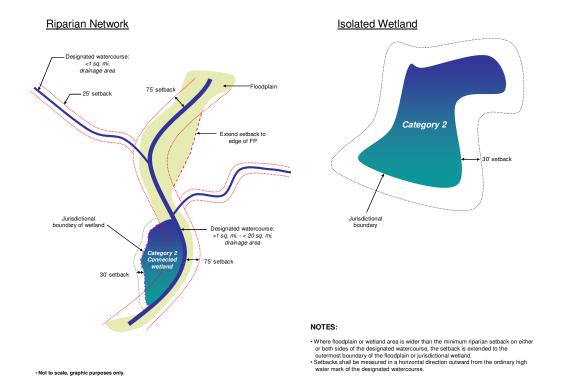
Other changes accompanying suburbanization, such as changes in water temperature, oxygen levels, and pollutants carried in the runoff, can also adversely affect aquatic wildlife. In the natural system, pollutants in the runoff are removed from the water as it soaks into the ground or flows through the organic litter at the soil surface. With urbanization, these areas are replaced with pavement and buildings, and deposited pollutants are washed directly into stream channels. Pollutants in urbanized streams are frequently ten times higher than in predevelopment streams. These pollutants and conditions include suspended sediment, nutrients (phosphorus and nitrogen, usually from fertilizer and equestrian waste), oil and grease, trace metals, chlorides or salts, and thermal effects due to reduced vegetation cover over the stream. These pollutants and conditions affect not only the receiving stream, but also downstream waters, such as wetlands and Lake Erie.

Madison Township is managing stormwater through requirements implemented during the permit process for new development and through assistance provided by the Lake County Stormwater Utility Department. The Township Service Department and Stormwater Utility department have been actively maintaining and cleaning multiple ditches throughout the Township. Other tools include detention basins that temporarily store and slowly release runoff from large storms to reduce peak stormwater discharges, and restricting development in stream floodplains that are susceptible to frequent flooding. While both approaches have been effective in curtailing flooding problems, they cannot entirely mitigate the impact of urbanization on stream habitat through increased pollutant transport.

RIPARIAN SETBACKS

Riparian areas are naturally vegetated lands along rivers and streams. When appropriately sized, these areas can limit stream bank erosion, reduce flood size flows, filter and settle out pollutants, and protect aquatic and terrestrial habitat. Riparian setbacks are a tool local governments can use to maintain riparian area functions. These can also apply to designated wetlands.

Madison Township can establish riparian setbacks through a combination of landowner education, land acquisition, and land use controls on new development. The Lake County Planning Commission, Lake County Soil and Water Conservation District, land trusts, and other organizations are skilled in assisting communities and landowners with education and acquisition efforts.



The setbacks are derived using the Chagrin River Watershed Partner's model setback ordinance.

Riparian setbacks should:

- Range from 25 feet to 300 feet depending on watercourse drainage area.
- Minimum distances and apply to both sides of designated watercourses.
- Conform to community land development patterns & natural resource management goals.
- Include provisions for communities to examine the combined impact of all setbacks (side yard, rear yard, riparian, etc.) in a subdivision or a parcel and make reasonable adjustments to ensure existing lots remain buildable, and to maintain lot yields from new subdivisions to the extent possible.

The draft zoning resolution that is part of the US 20 Corridor Plan includes the following standards for riparian setbacks in the township.

- Grand River, Lake Erie: 300 feet
- Arcola Creek: 200 feet
- Other watercourses draining an area of more than 0.5 square miles: 75 feet
- Watercourse draining an area of less than 0.5 square miles: 25 feet
- Where the 100-year floodplain is wider than a minimum riparian setback area along a watercourse, the setback distance is extended to the outer edge of the floodplain.
- Where a wetland is identified in a minimum riparian setback area, the setback distance is extended to the outermost boundary of the wetland.

WETLANDS

Wetlands are important components for water quality and quantity. According the US EPA, wetlands provide water quality protection, fish and wildlife habitat, natural floodwater storage and reduction in the erosive potential of surface water.

In Ohio, 90% of the original wetlands have been destroyed since the 1800s. Locally, development pressures have disturbed a large amount of natural wetlands.

Mitigation is required for developers who disturb wetlands on site, but the creation of new wetlands often occurs outside of the watershed that has been impacted. A local wetland mitigation bank would be an extremely valuable asset for Madison Township and Lake County as a whole.

NONPOINT SOURCE POLLUTION

Nonpoint source (NPS) pollution comes from many sources in both urban and rural areas. Runoff from

0 **Madison Township** 2,000 wetlands and floodplains Feet Wetlands 100 year floodplain

cropland, parking lots, lawns, mines, and septic systems often contribute to NPS pollution. Pollutants are transported to the surface and ground water by rainfall. During large storms, the runoff to surface water and infiltration to ground water increases, as does the rate of pollutant movement.

A large source of groundwater pollution comes from the overuse of agricultural chemicals. Fertilizers and herbicides, such as atrazine, are applied to fields to enhance crop yield. However, only limited concentrations of these chemicals are needed to be effective. Excess compound will remain in the soil, where they may degrade or adhere to soil particles. Any compound remaining unattached to the soil will eventually travel to an aquifer.

Increasingly, NPS pollution originates from urban uses, such as suburban lawns and gardens, street and parking runoff, and construction sites. Urban areas often don't have enough vegetation to slow the rate of contaminant travel. This is evident in areas with high amounts of impervious surface, such as the US 20 corridor in Madison Township. This can lead to a

faster contamination rate where more highly concentrated pollutants are transported into aquifers.

The Ohio Department of Natural Resources recommends using best management practices to reduce nonpoint source pollution. Best management practices are a management strategy that incorporates both engineering and cultural techniques that have been effective and practical in reducing water contamination. Best management practices include the timely and careful application of fertilizers and pesticides, the construction of filter strips surrounding fields that border a surface water source, and creation and protection of wetlands, which act as filters cleaning sediment, nutrients, and other NPS pollutant

ARCOLA CREEK WATERSHED PLAN

The Arcola Creek watershed drains 23 square miles of land in Madison and Perry Townships, including most of the US 20 corridor area. The watershed contains one of only two of the remaining estuaries on the south shore of Lake Erie.

In response to encroaching development that threatens the ecosystem of the creek and its watershed, the Lake County Soil and Water Conservation District adopted the Arcola Creek Watershed Plan in 2004. The watershed plan recommends changing some land use regulations to protect the watershed, including the following:

- Require riparian setbacks for impervious surface (parking lots and other paved areas), to reduce the velocity of stormwater runoff, and minimize nonpoint source pollution (polluted runoff, including oils and solvents on parking lot surfaces, lawn fertilizer, and bacteria from septic systems and animal waste.)
- Create an Arcola Creek floodplain overlay, to restrict building in the 100 year floodplain area.
- Prohibit fill in the 100 year floodplain area, to increase the amount of floodwater storage capacity. The plan states "Other suitable uses for these areas are agricultural fields, recreation area, and woodlots."
- Require impacted wetlands in the watershed to be offset by mitigation elsewhere in the Arcola Creek watershed.

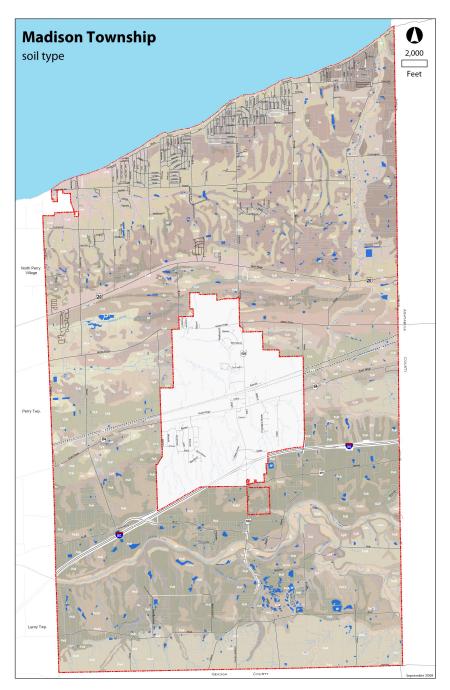
This plan recommends implementing all of the above.

10.4 Soils

Soils maps of Lake County were prepared by the Ohio Department of Natural Resources in 1973. The maps show twenty-five different soils, including silts, loams, shales, sands, gravels

and clays and indicate data on water tables, flood districts and slopes.

Madison's land conformation was influenced strongly by glacial action. Three distinct soil zones have formed from glacial till and lake deposits. The three soil zones are divided by ridges which once were beaches of the lake. The first zone lies between North Ridge Road/US 20 and Lake Erie, where soils are predominantly sandy, unstable, seasonally wet and susceptible to erosion. Arcola and **Church Creeks** flow through this zone and flood periodically. The soils of the flood plains are rich silt or sandy loam.



North Ridge Road/US 20 stretches along a glacial ridge which forms the second soil zone boundary. Soils of this ridge south to South Ridge Road are sandy and gravelly, and were formed as beach deposits. A high water table, low moisture capacity, and rapid erosion are characteristics of the soils in this zone.

The third soil zone lies south of South Ridge Road. Soils here are quite different because tile prehistoric lake extended only to the south ridge. The soils are silt and clay loam and weathered shales. A very high water table is present here as elsewhere and slow permeability, frost heaving and difficulty in working the soils are commonly encountered.

Three glacial ridges in the township (north ridge, middle ridge, south ridge) provide the only consistent relief from the high water table. The soils on all three ridges are composed of sandy beach deposits and are well drained with little water runoff.

The soils are classed for potential use and discussed in this section in terms of limitations to construction, agricultural use and for production of nursery stock. The following table shows that the least amount of acres in each of the categories is given a slight limitations rating. The greatest number of acres for construction and agricultural purposes receives a moderate rating while severe ranks highest for nursery stock production.

Table 10.1 Soils utility Madison Township											
	General construction			Agri	icultural	use	Nursery stock				
	Acres	Hectares	%	Acres	Hectares	%	Acres	Hectares	%		
Slight limitations	6,724	2,721	24.1%	434	176	1.7%	1,161	470	4.0%		
Moderate limitations	12,724	5,149	45.6%	23,188	9,384	83.1%	11,356	4,596	40.7%		
with drainage	n/a	n/a	n/a	n/a	n/a	n/a	7,115	2,879	25.5%		
with irrigation	n/a	n/a	n/a	n/a	n/a	n/a	4,241	1,716	15.2%		
Severe limitations	8,454	3,421	30.3%	4,241	1,716	15.2%	15,430	6,244	55.3%		
Total	27,903	11,292	100.0%	27,903	11,292	100.0%	27,903	11,292	100.0%		
Source: Inventory of Ohio Soils: Lake County, Ohio Department of Natural Resources, 1973.											

SOIL LIMITATIONS: BUILDINGS

Soil limitations to buildings are highly generalized due to a great variety of conditions. Only the areas designated as slight are subject to unqualified construction. Areas marked moderate may be so designated because of one or more factors, for instance: the area south of the Grand River is limited mainly by seasonal wetness and a shallow depth to bedrock while the area between SR 54 and the Grand River is subject to seasonal wetness and slope stability hazards. With consideration of the problems, almost any area marked moderate is adaptable for construction.

Areas are designated severe are due to conditions which would be beyond reasonable expense to correct or which would cause additional hazards elsewhere if built upon. Floodplains are one example; to build there, it would be necessary to construct a high platform to prevent excessive moisture at foundation levels. If this were done, it would cause excessive flooding upstream and downstream. It would also increase erosion downstream. Such areas should be avoided.

SOIL LIMITATIONS: AGRICULTURE

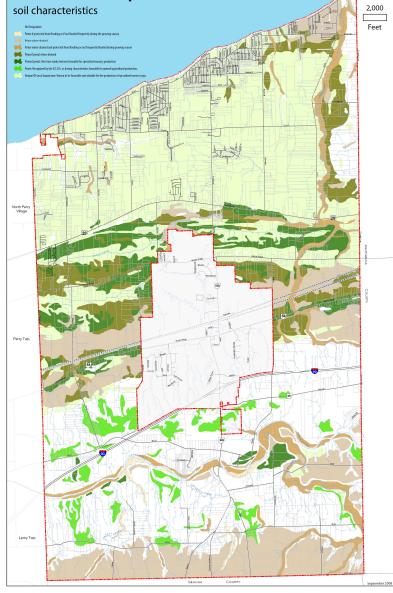
Most of the land in Madison Township has a moderate soil limitation rating for agricultural uses. Severe ratings account for about 15% of the land, especially along waterways and the railroad corridor. The slight rating is present only in spotty areas around Middle Ridge Road.

Madison Township

One of many challenges facing farmland preservation efforts is that the soils that are usually the best for agriculture – well-drained and sandy – are also ideal for residential construction.

SOIL SUITABILITY TO NURSERY STOCK

Production of nursery stock is accommodated by soils less conducive to the purpose than generally supposed. Only about four percent of the township is given a slight limitation rating for nursery stock. Almost 41% is rated moderate and 55% is rated severe. Except for the ridges, most of the land south of North Ridge Road/US 20 is generally unsuitable. Most



of the land north of US 20 is classified as moderate.

Soil condition is less critical for container production, which now dominates local nursery operations, than for field production. A container production bed can be built atop any soil type as long as drainage off the bed is achieved by way of a moderate natural slope or grading. Drainage is also important for the roadways between the beds, so vehicles and equipment have access throughout the year. Soil fertility level and pH are of no concern as they are for field production.

10.5 Geology

The geologic study was prepared by a professional geologist to complete the inventory of natural resources in the township. Geology is a science of the composition, structure and history of the earth.

The following is based on a report prepared for the previous comprehensive plan, *Geology for Planning*, which included physiography and geology, identification of resources, and engineering geology. The benefits of the geologic study are especially useful in the area of engineering geology, while inventory of the physiography and existing resources is a valuable reference.

PHYSIOGRAPHY AND GEOLOGY

Northeastern Ohio has been covered by three or four major ice sheets which began about one million years ago arid ended about 10, 000 years ago. The oldest glacial deposits have in most instances have been removed by the last glaciation, the Wisconsinan.

Two distinct physiographic regions are present in Madison Township; the Lake Erie Plain and the foothills of the Appalachian front, also known as the Portage escarpment.

The Lake Erie Plain extends from the bluffs of Lake Erie southward to the Maumee II Beach Ridge, located between South Ridge Road and Interstate 90. Excluding the Church Creek stream valley, the Lake Plain is level to gently rolling in nature with a relief of no more than 20 feet in areas, resulting from stream valleys and ancient lake textures.

The Portage escarpment abuts the lake plain region at the Maumee II Ridge and rises to the southeast. Relief is level to gently rolling, at approximately 150 feet per mile. The Grand River Valley and several of its tributaries account for the only major relief features, with bluffs of 150 feet

SURFICIAL DEPOSITS

Surface materials are mostly sands and gravels, clay and glacial till. Geographically from north to south, the texture of the township soils is graded from fine beach sand to coarse sands and gravels, then to clay till, and finally to a silty clay till in the extreme southern portion.

Underlying the sand is uniform blue, gray lake clay, except in isolated areas such as the northern stream reaches of Arcola Creek where the sand is underlain by Ohio or Chagrin shale. Floodplain deposits have been separated into three categories, fine loamy materials, coarse loam, and fine grained materials with shallow depth to bedrock. Generally, these deposits are thin and are highly irregular in nature.

BEDROCK

Bedrock outcrops are found mostly in Arcola Creek, Grand River and its tributaries. Bedrock is primarily shale and siltstone, but thin strata of sandstone, one or two feet (30 to 60 centimeters) in thickness are found occasionally.

SURFICIAL WETNESS

Wetness is an extreme problem in Madison Township resulting from a combination of permeability of the soil and depth to the water table. The water table varies seasonally and is influenced by the climate of the region. Most soils are saturated during the winter and early spring months. During the July and August the water table drops in response to the dryer conditions and evapotranspiration and recharge begins in early to mid-autumn.

Another factor controlling the water table is elevation. Low lying areas generally have a high water table. Low areas in front of ridges have a high water table which is induced by a hydraulic head. These are groundwater discharge areas and will be wet continuously in normal rainfall years.

RESOURCES

The second valuable product of the geologic study is existing resources. Resources in Madison Township are identified and described as sand and gravel deposits, groundwater, capability for waste disposal, bog iron clay, shale, oil, gas and salt. Criteria used in evaluating the resources are quality, location of the water table, thickness of the overburden, cost of removal, and the probable market.

Sand and gravel deposits are possibly the most valuable mineral resource in the township. The areas classified as good are mainly ridges where the texture of the deposits would be of suitable value for highway construction. The following are recommended for the deposits:

- 1. The preservation of sand and gravel resources through open space use, such as agriculture,
- 2. A planned method of excavation and material removal that would facilitate the redevelopment of the pit to another use, or
- 3. The return of the pit to further productive use, such as agriculture, recreation, or residential development.

GROUNDWATER

The major groundwater aquifer is the thick sand found at the ridges and north of North Ridge Road/US 20. The quantity of water obtainable depends on sand thickness and coarseness and Fine grained sand deposits generally yield less water than coarser grained sands of equal thickness. Water obtained from the sand is subject to pollution from waste disposal sources upgradient. Wells should be located upgradient from waste disposal facilities, especially in shallow sands.

Groundwater flows northward in moat of the township. Knowing the direction of flow is essential when considering groundwater quality and pollution control, and sufficient data should be collected on the flow system for water management and pollution studies. Small quantities of water suitable for domestic use (1-5 gallons per minute, 4-20 liters per minute) and of a lower quality are commonplace in the shale and clay aquifer south of Interstate 90 and underlying the sand aquifer north of the road. The poorer quality of water in shale is reflected in its longer residence in the ground. Brackish water is often encountered near the surface in the shale aquifer. Although the shales and siltstones are not considered good aquifers, they can produce domestic supplies up to 20 gallons per minute (80 liters per minute) in the southeast corner of the township.

SUITABILITY FOR CONSTRUCTION

The three gravel ridges, North Ridge, Middle Ridge and the South Ridge, have the fewest constraints for construction and provide good geologic properties and drainage characteristics. Constraints in these areas are the erosion-sensitive elopes when vegetation is removed and high potential for pollution of shallow groundwater wells.

Building space is limited on all ridges because of prior appropriation. Other suitable areas for construction lie between the South Ridge to the Grand River Valley arid from the Grand River Valley to the township line. These areas contain deposits of clay and silt. A hardpan layer in the till that impedes the downward flow of water from septic tanks is the major problem for development in this area.

Several areas in the township are identified as restrictive for development because of slope instability. Slope areas of concern are the walls of the Grand River and tributaries, Arcola Creek, and the bluffs along Lake Erie. Active sliding is presently occurring in areas even under

forest cover along the Grand River, which is a common occurrence with a base of interbedded shales and siltstones. Wave action, surface runoff and underground water seepage are the main causes of erosion along the Lake Erie shoreline. The author of the geologic study suggests the following to minimize the effects of slope failure:

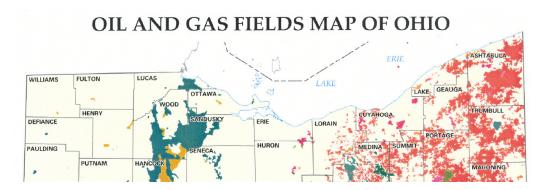
Grand River -

- (a) no construction within 50 feet of slope head
- (b) minimal vegetation disturbance within 50 feet of slope head
- (c) no construction on the slope at all. Cut and fill terracing would be unsatisfactory.

The Lake Erie bluffs are difficult and expensive to alter for erosion prevention. Purchase of land for use as natural areas is recommended.

10.6 Oil and natural gas

The Oil and Gas Fields Map of Ohio indicates a large gas field in Madison Township. This area (red on map) is a combination of three different geologic profiles: Devonian Ohio Shale and Siltstone, Silurian-Devonian "Big-Lime" and Silurian "Clinton/Medina" sandstone.



According to the Ohio Department of Natural Resources, there are 1,410 oil and natural gas wells in Lake County, about 270 of which are in Madison Township, and 30 in Madison Village. (Many of the counted wells appear on DNR oil and gas township maps as existing, but generally are very old and have not been field verified; they may or may not exist.) 2007 ODNR records indicate 543 producing wells in Lake County.

Most of Ohio's 62,902 active oil and gas wells are classified as "stripper" wells or wells that produce less than 10 barrels (42 gallons) of oil per day or less than 60,000 cubic feet of gas per day. The total production from wells in Madison Township or Madison Village is not tabulated.

Legislative changes in 2005 have largely exempted the oil and gas industry from local planning and zoning regulations. Community leaders may still provide comments on drilling activity during the permit notifications process that released by the Ohio Department of Natural Resources.

10.7 Treescape and woodlands

A popular belief is that, before European contact, America was dominated by impenetrable, relatively uniform forests that cloaked the landscape. The reality was quite different. Pre-

settlement forests were quite dynamic, shaped by a myriad of both natural and human-caused influences, disturbances and catastrophic events that had a profound effect on the age, plant species and wildlife of the forest environment. Pre-settlement forests were a diverse mosaic of forest stands whose age, tree species and wildlife varied widely and reflected the disturbance history of the area.

The original forests covering the area that is now Madison Township and Madison Village were not pristine in the sense of being uninfluenced by humans. Native Americans in the area lived in fixed villages, and domesticated crops accounted for more than half of their diet.

Thousands of acres were cleared for fields, and more was burned to improve game habitat, facilitate travel, reduce insect pests, remove cover for potential enemies, enhance conditions for berries and to drive game. It was a shifting type of agriculture. Fields and villages were abandoned when their natural fertility ran out, new forests were cleared, and the abandoned lands quickly reverted back to forest. In Madison Township, forests were cleared for farms and nurseries. As farmland was abandoned, forests slowly reclaimed the land.

The ecological subregion of Madison Township, as defined by the United States Forest Service, is: Humid Temperate Domain: Hot Continental Division: Eastern Broadleaf Forest (Continental) Province: Erie and Ontario Lake Plain Section.

The amount of land in Madison Township used for woodlots – a private area restricted to the growing of forest trees, specifically for building material or fuel – is not known. Lake County Cooperate Extension encourages sound woodlot management through educational programs and information sharing.

Many communities in the United States have tree preservation regulations. Under most tree preservation ordinances, site planning must consider the location of healthy, large native trees, and attempt to preserve them wherever possible. Trees subject to preservation cannot be removed unless they are replaced with trees of an equivalent caliper; for instance, a tree with a six inch diameter may be replaced with another six inch diameter tree, two trees with three inch diameters, or three two inch diameter trees, in addition to trees required by landscaping regulations. This plan recommends tree preservation requirements as part of updated landscape regulations.

Wooded land can still be developed with selective cutting of vegetation. However, many developers find it is more convenient to clear a site of all trees, to provide unlimited, easy access for construction vehicles. Tree preservation regulations can preserve the sylvan quality of the township, while still permitting development. Wildlife habitat is preserved, and the provided shade reduces energy costs. Privacy and home values are also enhanced. The village does not have tree preservation regulations. The township also does not have tree planting requirements for houses built on cleared land, such as former farm, nursery and reclaimed greenfield sites. The township should consider minimum planting requirements for new houses, to preserve forest cover, reduce the potential of urban heat islands, filter polluted air, and prevent soil erosion. Promoting urban forestry through mandatory tree planting requirements and municipal planting programs for public rights-of-way also has the benefit of protecting the local nursery industry.

10.8 Air pollution

According to the United States Environmental Protection Agency (EPA), Madison Village has one source of recorded commercial or industrial sources of toxic release inventory (TRI) pollutants; Chemmasters at 300 Edwards Street. Interstate 90, North Ridge Road/US 20, the CSX/Norfolk Southern rail lines, and the fleets of area trucking and excavating firms, are additional sources of air pollution.

Increased tree cover, described in the treescape section, can help filter many airborne pollutants.

10.9 Noise pollution

Noise pollution in Madison Township cones from several sources, the most intrusive being heavy rail traffic along the CSX/Norfolk Southern corridor, and Interstate 90. As the population of the village grows, traffic on once-quiet rural county roads will increase, along with the resulting noise.

Commercial uses can be the source of constant noise, coming from car washes, loudspeakers and public address systems at gas stations and auto dealers, idling vehicles at drive-through windows, and loading areas and after-hours deliveries at supermarkets and big box stores. These uses are increasing in the township. Proactive adoption of regulations intended to regulate and buffer fixed point sources of noise – requiring large buffer zones, berms, and/or masonry walls between residential and commercial uses, especially loading areas, accessory car washes and trash enclosures; and/or restricting music and advertising at gas stations – can prevent the intrusion of unwanted noise into residential and environmentally sensitive areas. Noise pollution can be mitigated with sound walls; tree preservation and screening; conservation development in areas close to sources of noise, and large building setbacks from highways and loud industrial uses.

Noise pollution along Interstate 90, North Ridge Road/US 20, and the rail corridor will be difficult to suppress. New residential development, and other types of development where tenants may find excessive noise to be a nuisance, such as nursing homes, schools and hospitals, should not be built near Interstate 90 or the rail corridor.

10.10 Light pollution

Light spillover from development creates a nighttime glow above much of northeast Ohio, which many find to be unappealing. Light pollution also obscures clear views of the nighttime sky, an attribute often seen as a benefit of exurban and rural living. The sources of light pollution include poorly shielded lighting from commercial development – particularly auto dealerships, gas stations, and businesses with large parking lots that remain illuminated long after business hours – cobra-head style street lighting, sports facilities, and residential security lighting. Artificial light that is not properly directed downward can spill into the night sky and onto other properties, causing a nuisance to adjacent property owners. Madison Township has several sites that generate stray or excessive light; business parking lots with overly bright, poorly shielded under-canopy and pole lights on North Ridge Road/US 20, streetlights along many township and county roads, and poorly shielded outdoor lighting at residences.

Heavy foliage in some areas filters some stray artificial light, but light from taller light poles and lights in cleared areas can pass unblocked onto neighboring properties and into the night sky.

Curbing light pollution in Madison Township may not greatly improve views of the night sky, especially considering sources of artificial light in more heavily developed parts of the Cleveland metro area. Maintaining dark skies above the village will help to preserve a semi-rural character that residents value. Lighting can be addressed through the implementation of requirements for light pole height, illumination levels, type of light, shielding, dispersal of light onto adjacent properties, and other elements in the township zoning resolution.

10.11 Goals and policies

Each primary paragraph (in bold type) is a statement of a goal. The subparagraphs are policies for implementing the goal. Some goals and policies related to land use are found in other elements.

NR-1 Activities and land uses that could harm waterways and watersheds are strongly discouraged.

- NR-1-p1 Promote continued preservation and restoration of natural habitat areas and high priority sites, in conjunction with county, state, federal and local government agencies.
- NR-1-p2 Work with county, state and federal agencies to purchase or acquire easements or development rights to high priority sites and areas of outstanding natural significance, for restoration and/or preservation.
- NR-1-p3 Support appropriate uses along streams that limit their impact and protect the environmental qualities of these natural systems, including parks and open space that preserve native vegetation and tree cover, and carefully planned residential development, institutional uses, and civic uses that preserves natural features near streams.
- NR-1-p4 Promote conservation along streams through the location of parks, open space, floodplain preservation, requirement of forested buffers, and use of conservation easements.
- NR-1-p5 Encourage green construction practices that will reduce groundwater runoff, such as permeable pavement and green roofs.
- NR-1-p6 Require subdivisions and development sites to be designed so no building sites are located in a 100 year flood zone, and where other improvements avoid flood plains, wetlands and other riparian features wherever possible.
- NR-1-p7 Establish a minimum riparian setback requirement for properties adjacent to or near waterways, streams, wetlands and floodplains.
- NR-1-p8 Keep floodplains that are not used for agricultural purposes in a natural state wherever possible, to ensure natural functions are maintained and not compromised.
- NR-1-p9 Seek continued preservation and restoration of natural habitat areas and high priority sites in watersheds, in conjunction with county, state, federal and local government agencies.
- NR-1-p10 Create a wetlands development and enhancement plan, in accordance with US Army Corps of Engineers requirements to create a wetlands mitigation bank.

NR-2 Appropriate soils will be considered in planning and development.

NR-2-p1 Preserve areas with unique soils, or soils of local significance. Development in such areas should be minimally disruptive, with as little impervious cover as possible, and planned in a manner that allows agricultural uses to remain and continue.

- NR-3-p2 Discourage development on inappropriate sites, including areas with slopes that exceed 15%, and areas that are considered unsuitable for building and agriculture given the nature of the soils and underlying geology. Such areas should be set aside for public or private open space.
- NR-2-p3 Consider soil drainage in assessing development. Avoid poorly drained soils wherever possible in locating buildings, or address such constraints through building and site improvements.

NR-3 The treescape of Madison Township will be preserved and enhanced.

- NR-3-p1 Work with Lake County to implement development and design standards that promote preservation of healthy existing native trees, plants and groundcovers. Work with property owners and developers to consider alternative site designs to reduce tree loss in the development review process. Prohibit clearcutting of mature woodlots and forests, especially healthy second generation forests.
- NR-3-p2 Implement stronger landscaping requirements for residential, commercial and industrial uses. Encourage retrofitting older, otherwise barren commercial and industrial sites with landscaped areas.
- NR-3-p3 Expand urban forestry operations as funds become available. Urban forestry efforts should include planting of native trees, preferably those grown by local nurseries, in road rights-of-way, parks, and public land.
- NR-3-p4 Encourage sound management of woodlots. Work with local government agencies, Cooperative Extension, and other groups to educate property owners about sustainable woodlot management.

NR-4 Air pollution will be minimized.

NR-4-p1 Monitor state and federal legislation intended to improve air quality, and support as appropriate.

NR-5 Noise pollution will be minimized.

- NR-5-p1 Adopt design standards to address and reduce effects of noise pollution.
- NR-5-p2 Require the use of earthen berms, noise-reducing pavement, and/or other features that will reduce or eliminate effects of highway noise, without deflecting it elsewhere.
- NR-5-p3 Require buffering of residential uses located near sources of noise pollution, such using sound walls, berms, and existing and new vegetation. Residential development near Interstate 90 and the CSX/Norfolk Southern rail corridor should be sited or clustered to reduce or eliminate effects of highway noise.
- NR-5-p4 Discourage placement of noise-sensitive land uses, such as schools, hospitals and nursing homes, adjacent to major arterials, unless they are well-buffered to reduce effects of highway noise.

NR-6 Light pollution will be minimized.

NR-7-p1 Adopt lighting standards to address and reduce light pollution. This includes using cutoff fixtures, lighting building and pedestrian spaces only, low-impact lighting of parking lots and gas station canopies, and reducing light generated during non-business hours.

NR-7-p2 Substitute conventional light fixtures at village facilities and along village roads with fixtures that maximize light downward, eliminate stray light and reduce light, as they are replaced.

A Appendix

A.1 Written survey responses

The last question asked on the comprehensive plan survey: "Any other thoughts or ideas about the future of Madison?"

Many common themes were reflected in the written comments.

Table A.1 Comprehensive plan comment themes: transportation Madison Village and Madison Township

Theme	Occurrences	
	Village	Township
Access management - support: limit or remove driveways, adopt regulations		1
Bicycles - support: provide bicycle paths and lanes, improve bike friendliness	2	2
Lighting: add or improve lighting on area roads		1
Pedestrians - support: improve or add sidewalks and paths, improve	2	6
pedestrian connectivity in shopping centers	2	U
Railroad - general: noise, whistles, etc.	2	
Railroad grade crossing: add overpass or underpass	3	1
Roads - general: add lanes, turns, etc		3
Sound walls: add along I-90		1
Speed limits: decrease	1	1
Traffic - general: traffic bad, concern about increasing traffic	4	5
Traffic lights: general issues; improve synchronization; add, remove or relocate signals	1	1

Table A.2 Comprehensive plan comment themes: built environment and aesthetics Madison Village and Madison Township

Theme	Occurrences	
	Village	Township
Architectural design - oppose: don't be picky, who cares as long as it adds to the tax base	1	
Architectural design - support: need regulations, want architectural consistency/quality, no more ugly buildings		
General aesthetics: area needs improvement	2	3
Landscaping - support: not enough landscaping, need more landscaping/buffers, need landscaping regulations	2	1
Property maintenance: poor property maintenance, need better enforcement, clean up trash/vehicles	2	13
Public art - support: nice to have sculptures, etc.		2

Table A.3 Comprehensive plan comment themes: utilities Madison Village and Madison Township		
Theme	Occurrences	
	Village	Township
Sewer and water - oppose: don't add sewer and/or water lines in rural areas		1
Sewer and water - support: add or improve sewer and/or water lines	2	1

Table A.4

Comprehensive plan comment themes: business and commerce
Madison Village and Madison Township

Theme	Occurrences	
	Village	Township
Big box retail - oppose: don't want Wal-Mart or other big box retailers, don't support business practices		4
Big box retail - support: support big box retail, want specific retailers	1	3
Entertainment - support: want movie theater, need teen center	5	6
Industry – oppose: industry not good for rural character		1
Industry – support: bring back factories, need more manufacturing jobs	6	9
Jobs and employment: low wage: need jobs for children, want retail jobs		1
Jobs and employment: mid-to-high wage: need to support the tax base, need jobs that pay a livable wage, tired of commuting		7
Local owned retail - support: want local owned retail, support or protect small locally owned stores		2
Lodging - support: need hotel, motel, bed and breakfast inn	1	
Low end commercial - oppose: too many dollar stores, payday loans; don't want dollar stores or similar businesses	1	3
Restaurants: fast food - oppose: too many fast food restaurants, too many pizza/carryout places, don't want more	1	5
Restaurants: sit down - support: want sit down restaurants, "need a nice place to eat," named restaurants	4	12
Retail in general - support: want more retail, "tired of driving to Mentor"	6	9
Vehicle dealers - oppose: too many used car lots, get rid of car lots, car lots tacky/ugly	1	6

Table A.5

Comprehensive plan comment themes: general land use and development Madison Village and Madison Township

Theme	Occurrences	
	Village	Township
Agriculture/open space/nursery preservation – oppose: too many nurseries, don't pay fair share, build on farm/nursery land	1	3
Agriculture/open space/nursery preservation – support: keep nurseries, acquire open space		8
Community character – don't let Madison become like Mentor	4	8
Community character – preserve rural character: preserve rural, exurban or small town character or environment	3	14
Growth in general – slow/oppose: no sprawl, grow only slowly, don't want externalities of growth		6
Growth in general – support: growth is inevitable, need growth for tax base	6	4
Historic preservation – support	2	1
Housing – oppose: don't want school crowding, don't want apartments/townhouses, don't want low/mod income		3
Housing – support: need housing for adult children/seniors, diverse housing options		3
Housing in general – support: need more residential development	1	1
Joint economic development district (JEDD) – support	1	1
Mobile homes – oppose: no more mobile homes		3
Planning and zoning – oppose: landowners should do anything they want, let marketplace decide, "get off my land"		1
Planning and zoning – support: need better zoning enforcement, support planning, support plan implementation	1	7
Strip development in general – oppose: concentrate development in one area		1
Vacant buildings/dilapidated: tear down abandoned buildings		1

Table A.6 Comprehensive plan comment themes: natural environment Madison Village and Madison Township		
Theme	Occurrences	
	Village	Township
Environmental concerns in general – support: protect wildlife, protect natural environment, protect soils	1	2
Stormwater control / drainage: need better/improved stormwater management, consider drainage in development	3	10

Table A.6 Comprehensive plan comment themes: other Madison Village and Madison Township		
Theme	Occurrences	
	Village	Township
Diversions for children and teenagers – oppose		1
Diversions for children and teenagers - support: need more	1	9
Intergovernmental cooperation: merge services, work together, stop politics/bickering	5	9
Lakefront access, lakefront park improvements – support		4
Tourism – support	1	1

The following are responses from township and village residents to the last question on the comprehensive plan survey. Some of the following responses have been edited due to database limitations, but they should capture the gist of the original response. Spelling, irregular capitalization and more glaring grammatical errors have been corrected. Comments critical of the planning process or land use regulation in general have *not* been edited. Comments dealing with issues not related to planning and the built environment (taxes, public safety, trash collection, township and village politics, criticism of named individuals, and so on) have been edited out. Not all respondents had additional comments.

MADISON VILLAGE RESPONSES

- Make the southeast corner at south Lake and Main better in appearance.
- Red light at Lake and Lexington Boulevard.
- #6 Environmental Assets: check only three? All of these areas need the protection of informed, knowledgeable leaders.
- Need an overpass over railroad tracks at one of the crossings. Trains need to stop blowing there horns during middle of the night; wakes up whole village. Be more watchful of developers and builders who don't stand behind there finished products; this includes roads, right of way, drainage, sewers, green space, drainage ponds. Bring some big industry to industrial parkways.
- We definitely need more: (1) recreation facilities for all ages (2) more restaurants and stores so that we don't have to go to Mentor (3) more industry so that we do not have to drive so far to work. Thank you.
- I lived in Mentor before moving to Madison. I now hate going into Mentor because of the traffic and over development. I like the quiet more-rural feeling of Madison. I hope "growth and development" does not mean noise and traffic. I do think parts of Madison

- could use a "face lift" and some beautifying, such as the park located on Lake Erie down Hubbard Road.
- We both have talked about having a movie theater or opening our old drive-in. We must try to keep our children busy, to keep them out of trouble. A skating rink, putt-putt, etc. Our YMCA is extremely expensive, especially for growing families. If there was activities families could afford, it too would help by giving the entire family things to do together.
- I'd like the zoning to be better planned. The City of Euclid is an example of thoughtful zoning. Heavy industry, light industry, commercial and residential areas are clearly defined and contained. That has not been the case in Madison. The enforcement of zoning and building codes is important to the healthy and successful development of our township and village.
- I believe storm water drainage and the roads themselves should be more of an issue than bike paths and trails.
- Use your common sense. Also, if Mentor is a typical suburb, I'd rather Madison be untypical!!!
- Please don't let us become another Mentor! While we need new businesses, and some new housing, to increase revenues, we are already facing way too much traffic on 528 and 20.
- Share philosophically. Not sure if Madison should become a city. 20 and I-90 interchange should be main business arteries Need a JEDD to be formed w/Township and Village.
- Need to bring businesses and industries to area which would increase jobs thus making people move into area. This would allow people not too travel, thus lowering gas usage.
- My family and I plan on staying in Madison Village for a long time as long as it doesn't become to over populated and built up. I enjoy the small town feel of safety and quietness.
- I'd like to see Water Towner Drive businesses developed. 2- More residential growth. That would bring in tax money for our Village 3- and keep our town Madison Village close to as it is.
- Government needs to find ways to eliminate waste, reduce costs, and explore "out of the box" ideas (such as regional government) to optimize use of existing revenue. Also, attract commercial and industrial business to improve tax base.
- Retain Historic Madison, farmland, scenic areas Travelers would be drawn to an Historic Madison and Lake area increasing bus tours, visits to wineries, etc. More financial input for local business. Also to tour Madison Historical Society Museum or Middle Ridge and Rabbit Run, Arcola Estuary and site of ship building and Arcola furnaces. We have a lot to offer in Madison.
- The recent flooding this year highlights the need for controlling land usage.
- General lack of entertainment. Would like a movie theater, more restaurant variety. We need an overpass for railroad tracks.
- I like living in Madison. I came here and bought a condo 29 years ago so it's perfect for me. The only reason I came here was to be near my aged mother, who has now passed away. I was working in Mentor at that time, but I wanted to take care of mom.

- No strip malls and unsightly, littered yards to be cleaned up by owner; particularly one on 528 across from Y. Its an eyesore to passerby!
- A "plant a tree or shrub" program. Residents can obtain trees and shrubs, free, for individual use, from the Internet.
- Work together with Township and Village.
- We need a bike land and sidewalk along Middle Ridge Road from 528 to the library. It's time for sewers (sanitary) in Squares Acres.
- The two governments need to either merge, or get on with building another middle school in the Village for village zoned kids! Busing them and crowding them, is not fair to them. Some separate zoning regulations are both unfair and vague and bring no regular incomes to either government sector! Taxpayers are tired of the overloads! Bring in more retail businesses and both industrial and commercial! Maybe a movie theater! Taxes for undeveloped utility areas should not be as high as those who have the availability of all the utilities! Give those without gas, water, or sewer a break! We need more sidewalks everywhere in both village and township! Walking has become very hazardous! There should be cleaner and more developed businesses at I-90 ramps.
- Route 528 from Route 84 to Route 20 needs a turning lane. Also, railroad tracks on route 528 need an over or under pass.
- Our biggest drawing cards are Western Reserve appeal and interesting historic past.
 Tourism should thrive. How about a welcoming station? How about carriage rides for visitors, or anyone?
- Need to enforce quiet zones unable to open windows in summer at night because of train whistles. I don't think they need to do this at 3:00 a.m. Noisy ATVs on vacant lots behind our housing development.
- The tax base needs to change. Maybe if the nurseries (I feel there are not real working farms: my definition dairy) kicked in more money it would help the tax base. Without an influx of new tax dollars from someone other then the home owner we could catch what Ashtabula County as urban blight.
- Don't stop growth. This is an inconvenient place to live!
- More high end shopping and restaurants. Industry to increase the tax base. Increase sewer capacity. Even if farmers don't want it. If they don't want development they should not sell their land. Same with water. It is up to them. Forget the pizza shops, used car lots. Bring in something with class. With the "We don't want to be like Mentor" mentality, we won't get anywhere. Outside the commercial area Mentor is very nice. They have a larger tax base as does Perry.
- Cut the "small town" politics and work to improve the quality of the town by bringing economic growth and providing "good paying" jobs and shopping right here. Do this and many other problems will solve themselves.
- On Route 20 going east in front of Pebbles should be a lane turning left or north. I think this would keep the traffic flowing better. Sometimes that right lane is backed up all the way past the fast food restaurants.
- Landscape the entire roadside (Route 20) in front of Wal-Mart.

- What is considered to be small lots or large lots. Our zoning in the Village has and been good. The only thing our traffic flow has increased to a point that the safety of our people and services will also increase. This must be in the new comprehensive plan for the future.
- Madison needs a better tax base from industry. There needs to be incentives to bring new
 business and industry to this town and also keep existing ones here. This will lessen the
 burden on the homeowners. Why have so many mfg. companies left Madison in the last
 10 years? Network with other area communities to see what they've done to build a better
 community.
- Question 7 doesn't have an acceptable answer. We want large lots with green space.
- Have to, just have to develop I-90 interchange. I've seen numerous cars or trucks exit, look both ways and get back on the freeway taking money somewhere else. We are also in dire need of name brand restaurants, both Village and Township. We love Wal-Mart and love not having to go to Mentor or Ashtabula. Bring on the home improvement stores, too.
- Village and Township should become one entity.
- We could use a chain restaurant or two in the village. Water rates are rather high. We could use more than one cable system to lower rates.
- One of the drawbacks from living in the village is the noise from the passing trains and their sirens, especially during the nighttime hours. Is anything being done to pursue the "Quiet Zone" enforcement? There are enough restaurants in the village, but it would be great to have one a bit more upscale, perhaps combined with a motel at the I-90 interchange, which is sorely needed.
- Having lived in Mentor and Painesville Township for most of our lives, we love the small town feel of Madison Village. With that said, we believe additional housing is needed. We also would love to see more businesses (especially dine-in restaurants) along the Route 20 corridor and the I-90 interchange to help the tax base.
- Madison needs to develop a business tax base instead of raising taxes on households.
 Also, I believe someone who knows how to handle community money needs to be hired.
 The village has increased its tax base quite a bit due to the newer, more expensive homes being built and the influx of out-of-town families moving in. However, we have lost services that were some of the reasons these people located here. (ex. recycling pick up, trash pick up, police officers etc.)
- The over-riding concern of future development must be recognition of the high water table and the need for storm water control and drainage.
- The businesses by I-90 need tall tasteful signs to pull people from 90 to our businesses. If they are not allowed a sign that is visible from Rt. 90, they will lose lots of business.
- Madison is a very good place to live! Please do not ruin that by adding more taxes and
 making the village a police state (some honesty in office would be good also). I do not
 want a Mentor atmosphere we can drive 20 min to get to almost anything but I would
 like to see current buildings (Tops) utilized to give more of a choice (Target)? Please
 address amount of police in village people do not want to shop there, way too many
 tickets.

• Convert Squares Acres septic system to all sewers! More sidewalks! Especially in Squares Acres development Movie theater would be a hit! Something to do as a family. Batting cages for the children. Family oriented restaurants: Applebees or Outback Steak House.

MADISON TOWNSHIP RESPONSES

- Madison is becoming gridlocked. We need more north/south roads to take pressure off 528. And better traffic control on Route 20. Better and uniform code enforcement. Better recycling access. Intersection visibility. Removal of abandoned of junk buildings and cars.
- I don't believe that Madison needs nor is it beneficial to continue a growth pattern that seems to be the same everywhere. We live here to get away from suburban sprawl and don't mind not having every shopping or convenience at our fingertips. Every town/village is trying to grow by attracting more business, industry and residents but it ultimately changes or destroys the original character and reason for living here. I understand that the motivation for growth is money to provide more services and convenience for residents, but with this we end up with sameness just like everywhere else. There are times when we need to be satisfied with and appreciate what we really have. Growth is not always a progressive thing. If business and industry and service are what I was looking for I would move, but I live here for the relative tranquility, not more of the same sprawl as elsewhere.
- Work together. Move forward not back. Look at a city idea for better control Get rid of used car lots junk cars better property maintenance/ Find money to improve Township Park for swimming! Combine Police Department. Get growth at I-90 clean up those corners that are unsightly!
- Madison is turning into a "Mini-Mentor" in the township north of Route 20. We have plenty of business and everything we need. Land is being cleared before anyone even decides to build on it. I understand you have to bring new money into the community, so keep it on the Route 20 corridor. The Village should remain quiet and pretty like it is. I just took over the family farm and wish I can keep it the way it was for the last 100 yrs. I don't want the school system or big business to push me out.
- People are not current with keeping things maintained. Its all in the hands for our fathers in updating and maintaining our areas not being grandfathered in, lets get current with the policies of 2000's not 1950's. Madison village I-90 exchange would make a person want to get back on I-90 and not see downtown Madison! (South side of 90)
- Madison Village and Township are facing growth that is necessary and inevitable. A. Use community planner with wisdom, farsightedness B. Common sense talk to your public!!
 C. (1) Varied housing mix (2) Chain Restaurants, specialty stores, fabric, bakery card/gifts plus (3) Business's/manufacturing (to help ease the real estate tax burden of homeowners) also brings employment. No more used car dealers. Mentor has had good city planning talk to them. Madison has lots more good growth potential on Route 20 than Geneva. Don't let us become an Ashtabula! Great local business our nurseries, garden centers, Anderson Jewelry, Peebles department store, Western Reserve hardware.
- Madison has four or five trailer parks. The people that live there need better jobs, better
 opportunities here in MADISON! If under development of housing and businesses
 continue in the village and township both places will be huge trailer park areas. The
 school district cannot pass a levy with these types of people with bad jobs. The
 Village/Townshp needs to allow development of nice housing and to bring businesses
 along with decent paying jobs to this town. The school is strapped for money because

people are not willing to pay higher taxes to support schools. That is insane! Combine the village and township redundancy of services is a waste of money. Start building nice homes and allow the development of industrial areas.

- Storage buildings next to houses? Route 84 is sad seeing houses and nursing homes ruined by greed! Route 20 is turning into Eastlake/slum look. The township should try and get less "rental/trailer" and more homes/pride. What brought us to Madison has changed. Can we get back to the city w/great soil. Blessed w/great soil, and we build Wal-Marts!
- Need progressive and aggressive leadership. Time for the farmers to urbanize.
- My daughter would have stayed here had there been a better environment for raising kids.
- Getting rid of yard junk would be a big improvement in the community! Try to attract more office style corporations like Progressive Ins etc.
- The south bound traffic light at 528 and 84 should be right turn on red! Continuity in commercial building and overall look of the Township and Village.
- Fire and police must give equal protection to all areas.
- People need to change their mindset. Even this questionnaire the blinders on "We want mainly a residential community." Then they ask "Why are our taxes so high" I can't afford to support having decent schools and services!" We need to get and keep industry here to help pay taxes and provide meaningful jobs. We did nothing to keep Bennett Machine here. Is Perfection next?
- Work with outside interests rather than discouraging everyone. There is good clean industry for the area. Everyone complains about taxes - but what is done about it - don't be so one sided
- While I do enjoy the abundance of rural area out here in the township I believe we indeed need to consider the source of tax revenue. A semi-industrial area would generate not only as a source of future jobs but to alleviate some of the high tax burden which is now on the backs of the home owner
- I am very much in favor of limiting growth in general. Unlike a lot of other communities in Lake County, Madison still has a chance to preserve some of the more valued aspects of life: more open space, less traffic and congestion, less pollution crime- etc.
- Madison needs to stay rural and not become like Mentor. Large stores like Wal-Mart, Home Depot, etc should not be invited to open in Madison because they hurt the local small businesses.
- Madison should not be afraid of slow controlled growth. Follow your comp. plan, and require developers to give you what is best for the community. Be cautious in rapid growth. Protect the five acre districts, and avoid extending utilities there. Do not become a city, but merge your police departments.
- We need consistency. No more "cookie cutter" homes. Need to do something about the flooding of Arcola Creek. Schools have to improve. The infighting in the township and village administration should cease.

- The inevitable commercial growth on the Route 20 corridor is eminent! To try to keep this type of growth out will not work. If they don't build there they will try to push out into the residential areas. You (local government) cannot stop these developers (big box, etc). They have the dollars, political power, and attorneys to sue (local government) and the individuals of the boards to eventually gain their ends. It's happened all over the country before!!
- Need something for kids to do have thought this for 35 years, so kids wouldn't have to go to other communities to do things. Would like to see some art and sculptures but not that awful thing they put in front of the YMCA (Metal X).
- Green Rd: sidewalk to Wal-Mart Hate to say speed limit should be lowered to 35 mph some reasons incoming and outgoing Wal-Mart traffic, pedestrians. Let's not wait for injury and or death
- Let's get the Village and Township working together not against each other.
- Attract people, businesses to the area but still try very hard to keep this a somewhat small town and rural (semi) area. Do something with Township Park. Re: boat dock, better care of the beach. Sidewalks along Lake Road and Hubbard Rd. (between Chapel and Route 20)! For the safety of all! Possible speed limit change along Lake Rd. W. Should be 24 or 30 mph! Overall, this is a great community to live and grow up in Good work! Keep it small!
- Please bring more restaurants and quality businesses to the township. I believe that this can be done while maintaining the integrity of the township via careful selection to the restaurants/businesses. There are certainly enough other communities that have already gone through these growing pains that could serve as examples.
- I would just like to see yards and houses clean up to a high standard NO JUNK CARS, TRUCKS in front yards. Some yard's look like a landfill I love it here Please help clean up.
- For the city of Madison not to become another Mentor.
- There are still stretches of open, undeveloped land as well as plant nurseries that help maintain the rural atmosphere. That is in danger of being destroyed as more land is sold. We all know that some growth is inevitable, but it should come slowly and with real deliberation as to the ultimate results of all decisions. Although we were against Wal-Mart, the power outages are rare now. Please help preserve this lovely, quiet township as long as possible. Use your powers s trustees wisely and consider the wishes of the long-term residents who have chosen to spend years of their lives here.
- Congestion and drivability of Route 20 (and other east-west) routes needs to be improved, or at least protected, as it is. More development threatens our major (if not only) access to the big city. Perhaps marginal access lanes could be run alongside current Route 20 all the way to Rt. 2. My primary concern is undeveloped greenspace the Arcola watershed with riparian setbacks, wetlands, forests, the Grand River Mill Creek areas south of 90. Save what we have.
- For a community on the lake, which should be considered a resort, Madison has a shocking lack of bike trails, sidewalks and recreational areas 2) If a shopping center were to be considered, I would like the village type layout similar to Legacy Village or Crocker Park but its location should be in an area already deemed commercial, probably along Route 20. 3) If housing developments were planned I would require the developer to provide green space, walking trails, bike trails. 4) The Arcola Creek floodplain should not be developed. Keep that natural area the same.

- Attract a four year university branch or outlet mall near I-90.
- People need to thank about where they allow a business to be built. There is entirely to
 much stuff at Route 20 and 528 and 20 west bound, in such a close area, poor planning.
 By far. There needs to be just one access road to get to all the east food places, to
 eliminate accidents and congestion. You'll don't think about that, just the tax income.
 There needs to be a freeze put on all residential building until the roads can handle the
 traffic we got now.
- We do not want any business south of Route 90! The area should stay as it is that is the only reason we stay here. We would move if any business were to be added south of Route 90 Interstate. We do not want water or sewer lines installed south of Interstate 90.
- Route 20 needs to be addressed. People have named it Death Alley. I think a middle turning lane would help a lot. Also by the freeway entrance it should be three lanes (two freeway + for Route 20 continuing to Painesville)
- We need to learn not to make the same mistakes that we did with Wal-Mart. Wrong location wells going dry. Wal-Mart certainly did not make our township very attractive. It is what it is a ugly box store. I think we can do better.
- Should update flood plain areas at no expense to homeowners. Like to see residential atmosphere of township preserved, however we do need more places of employment (controlled, limited to certain areas). More areas for teens to keep occupied (basketball hoops, etc.).
- Madison community center? Movie theatre, roller rink, game room. Living on River Road without yard ending at I-90 has become a safety concern. I have two children and I feel the wire fence dividing my property from the freeway is not enough. I have witnessed strangers entering our property, cars parked in emergency lanes and police officers firing their weapons. There are several children in my neighborhood and I'm sure we'd all agree that something needs to be done to prevent the wrong person from entering our property. Any future plans of barrier walls would prevent Interstate traffic from our children.
- Maybe we should stop building new homes and fill the "old" new" homes first. Way to many empty homes. The Madison Township beach is the worst beach I've ever been to.
- I would love to see more activities for the children. Even a theater would be nice. Some really good restaurants would be great.
- Attention needs to be given to infrastructure. You need the utilities and roads before residential squeezes the space. Large lots need to be maintained where soil quality would preclude necessary drainage i.e. five acre lots where the clay precludes septic drainage
- With 400 residents at the Sahara Man. Phase, there should be a light installed so we can get out of the park. And it could also slow some of these speeders down.
- Lake County had 63,000 acres of farmland in the 1950's and that number has dwindled to about 18,000 acres. What we have to remember is that when the land is sold off and developed, the cost for community services and taxpayers increases. New residential and commercial development outside existing communities requires new roads, sewer systems, water lines and schools. That means more services and translates into higher taxes. Another reason of course is we can all enjoy some open and green space.
- Keep us rural/village but not a "Dollar Store" and "Quick Loan/Pay Check Cashing Store" mentality

- The buildings that are falling apart and vacant make Madison look depressed and bad.
- Something needs to be done. We need competition for Wal-Mart no more used car lots, etc. Jobs! Things for kids to do! Chain restaurants I'd spend my money here if these were available. Also, would be help with tax base. Get rid of personal agendas and do what the citizens want.
- Madison Village needs quality businesses. Like coffee shop, funeral home, massage place and Main St. Café buildings in village need updated and kept up. Need to put pressure on landlords of buildings. The Village has great potential! Need sidewalks in township!! Especially on Lake Road.
- I am glad too see new businesses coming to town. Growth is good.
- I think you should encourage health (walking especially) and it would be great to have sidewalks on Green Road. Or a bike path that people could walk on, and wider on Chapel Road. Think of the people in North Madison who would walk to Wal-Mart instead of driving!
- If Madison does not come up to 2007, you will see more people leave. Kids need a place to go other than the high school. Madison is cliquey, and hard to fit into. Look at all the growth in Geneva maybe Madison should take note!
- We need businesses here to help ease the tax burden and to keep money and jobs here instead of Mentor. Example - food chains like Applebee's, TGI Fridays, movie theaters, Kohls, Target.
- Madison is in definite need of a solid tax base that is not solely supported by homeowners; or current "baby boomer" homeowners. Will have to leave simply because they won't be able to afford the real estate taxes. I feel businesses can come into Madison without Madison becoming another "Mentor", which is a city most Madisonites left to get away from all of the traffic and congestion. Route 20 and I-90 corridors would be a good place to start attracting businesses.
- More business to offset taxes on residents. Expand and widen roads to make travel faster around Madison.
- We must address the flooding problems. We must be careful in development of the township as the more we do the more crime comes in. We are no longer as safe as we were.
- Leaders in community need to act in a mature, professional manner in all public meetings.
 The bickering in the media reports makes Madison look ridiculous rather than an attractive place to live as we have believed it to be in the 43 years we've lived here.

 Perhaps a merger of village and township will help some day.
- No. Madison is doing just fine. Don't fix what isn't broke. Look what happened to Painesville and Ashtabula and other towns and cities. We are a wonderful place. Leave well enough alone. A step at a time.
- There needs to be more for our families to do. Importance of keeping families together is being able to attend things together. Common restaurants, Bob Evans, Applebee's, Chili's etc. Family environment.

- Affordable housing. Nice size homes on .5 or less lots where families can grow and enjoy the quality of living in Madison. Price of things continues to rise. Not many people can afford \$1,000.00 month house payment and do not want to pay extra tax to live in Village and still have a life.
- Get your drainage/water problems fixed and anyone would pay to live in Madison. Route 20 east end of 528 has potential growth Clean it up! Just because it is toward Geneva, does not have to look so bad. Demolish old buildings (bowling ally) etc. Turn it back into wetland if cannot build. Use common sense! Fine the responsible party if not taken care of. Also homes w/junk cars and filth should be fined. Many homes have lost value because of unkept neighbors. Thank you.
- Madison must do its utmost to accommodate the needs of an aging population in all aspects of living yet encourage judicial growth, both residential and business, in order to attract an educated, young, and community-oriented type of individual or family. Not to forget the kids, the number and quality of recreational facilities in both the Village and Township is embarrassingly poor. Our preteens and teens deserve better than what Madison offers.
- The Village and township should merge together as a city. Even though a city income tax would be put in place. This should lower property taxes for everyone. Hopefully!
- Basically I am satisfied with the way things are going. P.S. Your recycling area is a disgrace. I would rather do away with it than have junky place like that.
- Overpass or underpass on railroad crossing
- I'm 66 years old and have lived here most of my life, so I don't plan to go anywhere soon. I like it here and welcomed the new Wal-Mart store. Now I don't have to travel 26 miles for a skin of yarn. How I do miss the Aruta's Drug Store, though. Thanks for asking our opinions.
- We need things that are going to keep young family, and teen interested in staying here.
- Thank God for Wal-Mart We need department stores, etc in Madison so we can economize our budgets in terms of gas and wear and tear on vehicles. We need trustees who are aware of residents wishes as a public vote indicated for Wal-Mart. Trustees should abide by Madison residents wishes as shown at the polls.
- No more car lots No more pizza places Need more family restaurants like Bob Evans, Applebee's, Friday's Redo the old bowling alley into something for kids Get rid of the drive-in eyesore.
- With growth, I believe Madison will do just fine.
- White line on road keep painted. Keep the road repair up. Sprays the weeds along co. roads. Or keep them cut down.
- More light industries in township to help lower taxes
- I think that all the development taking place in the township and the village should be looked at very closely. We are developing a lot of green space and are not addressing the issues or impact it is having on the community especially the drainage issues. We are now having flooding problems in areas that are not prone to flooding. If we continue to develop land we need to have a comprehensive plan in place to address this issue, or we will be having a problem of people moving out of the area. I don't think we want to be

- known as the place where it floods each time we get 2"-3" of rain. I think this would have a negative affect on our community. Our tributaries can only take so much water.
- Keep developers like Osborne out of Madison. We do not want to be like Mentor. Slow down new construction until we get flooding under control.
- #1 priority ground surface water disposal control! Replace all sewers add additional sewers/or catch basins! #2 attract industries headquarters or plants to improve job opportunities for children to remain here. Fast food businesses are not the answer for them!
- Extend water lines in rural areas Route 84 Wood Road to Dayton Road. Upgrade sewer lines in village. Have once a year trash pick up in rural and village area
- Develop Route 20 and 528 for commercial use. Increase residential lots to at least 1/4 acre. No more trailer park's. Limit multi-family unit's. Madison seems to have a lack of vision for long range planning. The development can be a disaster.
- We moved here because of the small town feel, great school system and affordable housing. As a single parent, you are financially forcing me out. I know we would have to drive to get to the mall, doctors, or work when we moved here. I did not want to live in Mentor. We need more for the kids, instead of more bars and auto dealerships. How about a recreation department skating rink, putt-putt. Use the property of the schools for kickball. I hear kids saying there's nothing to do so lets go drink, toilet paper houses, or egg someone because there's nothing to do!
- Would like to see postal sub-station in North Madison It's a pain to have to drive to village. Would like steps to beach installed at end of Redbird Rd. so beach could be utilized. Snow removal is excellent no category to rate it. Emergency service is excellent Clean up corner across from Walgreen's Limit tattoo shops and new age shops.
- Keep it the way it is.
- More restraints in Township Stricter enforcement on clutter in front of business and homes
- We need to attract business to improve conditions and reduce tax.
- Is a comprehensive plan really necessary and useful? Strict adherence to such a plan may hurt more property owners than it may help. And inconsistent use of a comprehensive plan hurts more property owners than it helps. In past years many individual township property owners' personal plans for their property were rejected by zoning officials, based on the comprehensive plan. Then when Wal-Mart wanted to build its store, officials rejected the comprehensive plan in favor of the property owner. Such inconsistent, unfair use of a comprehensive plan invalidates any good intentions associated with its use.
- Do we needed any more used car lots NO
- Madison area looks like every other town. It has lost its character, personality and "curb appeal." It has become too congested and there is no easy or time-saving way to get from the lake to I-90. I'd like to see more development on the east and south sides of Madison, not on the west and north sides.
- Preserve small town character of village. Preserve semi-rural character of township. Limit development in village/township. Do not want Madison to end up like Mentor

- Madison is a beautiful community and I feel safe here. I would like to continue that feeling. However the township does lack lighting in the residential areas by the lake. There are also too many buildings going up when you have large empty ones like old tops.
- I see nurseries mentioned far to many times to preserves when I moved here I enjoyed the smell of fresh cut hay grapes ripening in fall, seeing crops grow and harvested, Now all I see are landscape plants being tended by migrant worker who do nothing for our community, but take our taxes and social services the mom and pop nurseries are fine but mostly don't exist.
- Changing Madison could become similar to Mentor if we don't make the right choices now. Even the general attitude in Mentor is a rude and pushy community. Please lets not become that.
- We need a JEDD. We need more industry and large manufacturing to ease our tax burden.
- Madison has to develop commercial/industrial enterprises. Property owners are paying
 for the underdevelopment and discouragement of industrial development which leads to
 taxing property owners. Agricultural land is great, but the tax liability for that is far less
 than the average homeowner with a quarter lot, half lot etc pays because they pay much
 less percentage wise. Tax revenue for both the village and the township must come from
 sources other than property owners.
- Use legal force on those that create nuisances, noise
- Keep our small town a small town! Properly maintain creeks, rivers, drainage ditches, groundwater drainage. Encourage agriculture!
- Would like to see some name restaurants in front of Wal-Mart Also a movie theater in the Wal-Mart areas Also a sidewalk from Chapel to Route 20 on Green Rd.
- Madison needs more restaurants (other than fast food). Building permits need to be scaled way down (too many homes going up and too many empty condos and/or town houses. Commercial businesses such as machine shops and factories would turn the rural appeal into another Mentor (as an example) with associated problems of pollution (especially water) and traffic.
- Please no more big box stores unless at I-90.
- Small businesses should maintain property so it fits in esthetically with the residential area they are in, i.e. Beach and Bogas on McMackin and Stair (Buckeye) on Route 20.
- Safe access to Lake Erie. Shoreline in Township Park is dangerous and filled with debris Stanton Park Beach is nothing more than a cliff. How about abandoned Tops into a movie theater? Would love to see the train station on the tracks moved and placed in the Village on the vacant corner of Main Street and 528. Volunteers could take turns spring, summer and fall distributing info about our community and surrounding areas. Heating and cooling in the Chapel in Stanton Park? Could be used year round for weddings.
- Put bigger drains in Sahara and water pressure Super Kmart, more gas stations more affordable restaurants. Perry, Best Friend's; Olive Garden, Mr. Hero, Ponderosa, Utter Treasure, more dollar stores = better line on Route 20. Keep Route 20 plowed and open during winter. Fire hydrants in Sahara mobile Park. No back exit to Sahara Park back in Paradise.

- About #14 if an artist wanted to donate something visually appealing o.k. but don't waste taxpayers money. #21 we have enough park land and Lake Erie. Let parents pay for their kids recreation as we always did. Don't waste taxpayers money on facilities for teens to destroy. The wonderful old days of Madison are fast disappearing.
- How about a movie house? More nice restaurants. Clean up Route 20.
- Too many eye-sore used car lots! Too many fast food, pizza, etc. type restaurants. Too many areas being overloaded with too many retail/commercial businesses (especially in township) example: how many Dollar Stores do we need? and/or pizza places etc., etc.?!?
- Yes I feel since Tops Stores closed, the boarded up building should be reopen and put in a few shops and other stores etc. as it looks awful all closed and nothing there. What about the old BP station in Hubbard Road and Route 20, how about a Taco Bell or build over by First Merit Bank an Eat-n-Park restaurants. It would be nice also to see a few more condos building for seniors. Something affordable. Need something for kids.
- No more fast food restaurants No more nurseries
- I am concerned about ground water, drainage and water issues that have developed as the result of the Wal-Mart development. I hope that these issues will be resolved before any other construction begins at the site. I am also concerned about the speed limit on Green Rd. with the increased traffic. Would like to see Township and Village Police Department work more cooperatively for the benefit of the schools.
- I think a lot of trees in the area need to be taken down. Also they need a replant program to put back trees of the greenery. Green Road needs trees by 20. Development is good but sad because they don't replace trees and preserve land. We need family restaurants and jobs to keep people in area. We need something for each generation. If taxes keep going up, people who pay off their homes will not be able to pay their taxes when retired.
- The people who represent our interests in growth and protection better be seeking advice from more than their parochial views. Now that Wal-Mart is here to stay it is obvious times are changing so hopefully we will have wise and visionary leaders to guide the development of our community.
- We do not need curly O driveways. Such as the shopping center of Route 20 and Hubbard Rd. Tear down buildings not being used or use them as a recreation area. (Tops Store building these buildings look bad boarded up) Give 1 year limit on empty buildings before tearing building down if not occupied.
- I think we need an industrial park that would draw in industries to provide jobs in the area. This would help if gas prices get to the point people can't afford to drive distances. Of course incentives would have to be offered to bring in industry.
- I moved to Madison in 1997 to raise my daughter in a small rural town atmosphere. I don't want to see any more commercial development. There are too many empty office spaces that are new and never used. I knew when I moved here that I would have to travel to Mentor or Ashtabula for shopping and entertainment. Keep Madison rural Keep big box stores out! Provide curbside recycling current recycling area in North Madison always looks bad garbage has littered the area. Road Department does a great job! The guys are friendly and helpful.
- Allow more growth for business like Wal-Mart to come to Madison. Also, better restraints are needed. Allowing more business will lessen the tax burden on homeowners.

 Many communities across the country to which people gravitate and which exude charm are no more important/significant then Madison which has a rich and fascinating history. But no one seems to know it, or call about it, or exploit/promote it. I was shocked when I moved here in the early 90's to find that which drew us here was so little valued by the locals.

A.2 Code of the exurbs

Inspired by the Code of the West from Larimer County, Colorado

Thousands of people in Cleveland and its East Side suburbs are spreading out to the rural fringes of the region, moving past the suburbs of eastern Cuyahoga and western Lake counties to settle in rural communities in Lake, Geauga and Ashtabula counties. These growing, once predominantly rural townships – which includes Madison Township – are known as exurbs.

Continued decentralization of economic activity and the development of suburban employment centers have also made it easier for people to move further from the urban center. Technologies have made it possible to have many urban conveniences without living in an urban area. Desire for a rural lifestyle and dislike of certain urban and suburban features, such as congestion and lack of privacy, have driven many further out beyond the suburbs in search of a rural ideal.

It is important for you to know that life in the country, even in areas that are not far from cities, is different from life in urban neighborhoods or suburban subdivisions. Township government is not able to provide the same level of service that city and suburban governments provide. To that end, we are providing you with the following information to help you make an educated and informed decision to purchase a home or land in Madison Township.

1 The property

- 1.1 Growth management. Ohio state law grants only very limited powers to townships to regulate the amount of growth that takes place. Surrounding properties will probably not remain as they are indefinitely. Land adjacent to yours may be subdivided and developed at any time, subject to township zoning regulations. The view from your property or the bucolic rural environment of your surroundings may change. You can check with the township zoning inspector or Lake County Planning Commission to find out how the properties are zoned and to see what future developments may be in the planning stages. Understand that you will not be the last new resident in Madison Township, the gates will not be closed behind you, and that you are contributing to the same urban sprawl and congestion which you may find upsetting and disruptive in the future.
- 1.2 Zoning. Madison Township adopted zoning regulations in 1957. Conditional uses are strictly controlled. Even though there may be room for a certain type of use, and you feel it won't bother your neighbors, it may not be permitted. Very large accessory buildings used for hobbies such as automobile restoration and collecting may not be allowed. Storage and regular parking of construction and business vehicles is not permitted. Consult the township zoning inspector before you buy a property if you plan a for-profit enterprise or a space-intensive hobby.
- 1.3 Easements. Easements may require you to allow construction of roads, power lines, water lines, sewer lines, and other utilities across your land. There may be easements that are not of record. Check these issues carefully.
- 1.4 Fences. Fences that separate properties are often misaligned with the property lines. A survey of the land is the only way to confirm the location of your property lines.
- 1.5 Homeowners associations. Some subdivisions have covenants that limit the use of the property even more than the zoning regulations. It is important to obtain a copy of the covenants (or confirm that there are none) and make sure that you can live with those rules. However, there are no covenants or homeowners associations in most areas of the township. Your eccentric next door neighbor may be well within their right to paint their house

fluorescent pink, fly Jolly Roger flags, or maintain an extensive display of tacky lawn ornaments.

- 1.6 Platting. You may be provided with a plat of your property, but unless the land has been surveyed and pins placed by a licensed surveyor, you cannot assume that the plat is accurate.
- 1.7 Lot splits. The bulk of residential building lots in Madison Township were created by dividing a small parcel from a much larger tract. A survey alone does not necessarily guarantee that the parcel was legally subdivided and created, and thus buildable. Make sure the property you are considering buying is a legal building lot that was properly subdivided. Even if your lot was legally created, it may not conform to Health District regulations, and you could have a difficult time getting a septic system approved. You may not be able to subdivide your lot in the future, because of its size, shape, capability to handle additional development, or some other factor.
- 1.8 Rivers, creeks and streams. Buildings constructed in a floodplain will require expensive flood insurance. Building new buildings in a floodplain may not be allowed. Flowing water can be a hazard, especially to young children and small pets. Before you decide to locate your home near a river, creek or stream, consider the possible danger to your family.
- 1.9 Trespassers. Snowmobilers, hikers, hunters and bird watchers, all common in Madison Township, may stray onto your property, unintentionally or through willful disregard. It is extremely expensive to fence or secure a large lot, especially one with varied terrain or extensive vegetation. Fencing also disturbs wildlife migration patterns, and may be damaged by animals, falling trees or other natural acts.
- 1.10 Building expense. It will be more expensive and time consuming to build (and maintain) a rural residence due to delivery fees, the time required for inspectors to reach your site, extension of utility lines, well and septic system installation, fencing installation, and construction of long driveways, among many other things.
- 1.11 Shooting and hunting. Unlike incorporated communities, firearms discharge is permitted in Madison Township. Property owners may practice recreational target shooting on their own property. Some property owners allow hunters on their land during deer season. Some varmints can be hunted throughout the year. The township is home to some private rod and gun clubs. The sound of shooting firearms may be disruptive, especially during designated hunting seasons.

2 Transportation and access

- 2.1 Retail and commercial services. A rule of commercial development is "retail follows rooftops." Madison Township is not a lucrative market for retailers, because it has a low population density, and it is generally not as affluent as suburban communities closer to Cleveland. The variety of stores, restaurants or commercial services available in the township is limited, and they typically don't cater to those with very sophisticated or esoteric tastes. Residents may need to travel far outside the community for shopping, medical appointments, entertainment, and other retail needs and service.
- 2.2 Road maintenance. Madison Township maintains many long roads on a limited budget. The cost of maintaining roads is spread among fewer property owners. Road maintenance patching, repaving, grading, plowing and salting may not be conducted to the same level or frequency as in more populated areas, or areas with a larger commercial tax base.
- 2.3 Unpaved roads. During dry weather, gravel roads generate dust. During wet or snowy weather, roads may be sloppy. Snow removal is more difficult and less effective on gravel roads. Flying gravel may chip paint and crack windshields. Your car will not stay clean if you drive on a gravel road. You will experience an increase in vehicle maintenance costs when you

regularly travel on rural unpaved roads. If your road is unpaved, it is highly unlikely that it will be paved in the foreseeable future.

- 2.4 Traffic volume. Long arterial and collector roads carry a wider variety of traffic than urban and suburban residential streets. Your road may experience heavy truck traffic, tractors and other agricultural vehicles, construction vehicles heading to and from jobsites in the area, motorcycle and classic car club outings, and other types of traffic not encountered on residential streets in urban and suburban areas. If you live on a "frontage lot" on a collector or arterial road, the amount of traffic on it will increase as commercial activity and the population of Madison Township grows.
- 2.5 Commute times. Madison Township is at the far eastern edge of the Cleveland metropolitan area. Commute times to major professional employment centers (downtown Cleveland, University Circle, Beachwood/I-271 corridor) will be long. A commute from Madison Township will probably involve travel on Interstate 90 or North Ridge Road (State Route 2). Westbound traffic on I-90 and North Ridge Road is increasingly congested. Accidents and the resulting lookie-loos, snow, construction, and aggressive speed enforcement will increase your commute time. You should consider your commute time to your current place of work, and consider how your drive to work will be affected if you get a new job or your employer relocates even further from your home.
- 2.6 Public safety. Emergency response times (police, fire, medical care, etc.) cannot be guaranteed. Response times are generally good, but some parts of the township have poor access. At night, houses on forested lots or with poorly marked addresses may be hard to find. Under some extreme conditions, especially during inclement weather, you may find that emergency response is extremely slow.
- 2.7 Landlocked lots. Although rare, there are some lots in Madison Township that have no direct road access. There can be problems with the legal aspects of access, especially if you gain access across property belonging to others. It is wise to obtain legal advice and understand the easements that may be necessary when these types of questions arise.
- 2.8 School transportation. School buses travel only on maintained roads that have been designated as school bus routes by the school district. You may need to drive your children to the nearest school bus stop so they can get to school. You may also need to drive your kids a long distance to a school for extracurricular activities.
- 2.9 Kids. With few neighbors and no youth center, children in Madison Township have limited opportunities to interact with their peers. You will also have to drive them to social activities, the mall, soccer games, friends' houses, and everywhere else not within a close bicycle ride.
- 2.10 Public transportation. The frequency of Laketran bus service in Madison Township is low. Service is primarily intended to serve commuters, not those traveling within the township. Given the low population density of the township, and the increasing need for transit service in more densely populated urban and suburban areas, it is unlikely that frequent bus service will be available in the near future. Dial-a-Ride is intended for the elderly and disabled, not commuters. You will depend on an operating motor vehicle for all of your transportation needs.
- 2.11 Pedestrian and bicycle accommodation. Many streets in Madison Township do not have sidewalks. When roads have shoulders, they are usually very narrow and not designed for walking, biking or jogging. Pedestrians, bikes and runners may, unfortunately, be treated as an annoyance rather than a normal part of the landscape. Pedestrians may not receive the same level of courtesy and consideration from drivers as in urban and suburban areas, where walkers are more common.

3 Utilities

- 3.1 Water supply. Some parts of Madison Township are not served by a central water system. All water in these areas is provided through on-site wells. The cost for drilling and pumping can be considerable. Quality and quantity of well water can vary considerably from location to location and from season to season. Much of Madison Township rests on aquifers with low flow rates. Sulfur water and salt water may be a problem. Agricultural activities and increased residential development may have an adverse affect on your water supply. A power outage will shut down a well pump, and interrupt your water supply.
- 3.2 Septic systems. Much of Madison Township is not served by a public sewer system. You may need to use an approved septic system or other treatment process. The type of soil available for a leach field will be very important in determining the cost and function of your system.
- 3.3 Electric service. It is important to determine the proximity of electrical power. It can be very expensive to extend power lines to remote areas, or homes set back far from a road. Most electric lines in the township, as well as telephone and cable television lines, consist of unsightly overhead wires. It may be necessary to cross property owned by others in order to extend electric service to your property in a cost efficient manner; proper easements should be in place to allow lines to be extended to your property. Power outages can occur in outlying areas with more frequency than in more developed areas, and repairs can often take much longer than in more densely populated areas areas closer to Cleveland.
- 3.4 Telephone service. As with electric service, it can be expensive to extend lines to remotely located homes. Rural phone lines may be subject to more interference and lower call quality than in urban and suburban areas. Calls to much of the Cleveland metropolitan area are considered long-distance. Technology upgrades and new services may be offered much later than in more densely populated urban areas. Broadband Internet using DSL may or may not be available.
- 3.5 Cable television. It can be expensive to extend cable lines to remotely located homes. System upgrades and new channels may be slower in arriving than in more densely populated urban areas.

4 Mother Nature

- 4.1 Snow. Because of its elevation and location, the southern end of Madison Township is far more susceptible to snow than areas closer to Lake Erie. The south end of Madison can receive up to two to three times the snowfall as the rest of the township; up to 80 inches (two meters) or more in a winter. Lake effect storms may dump up to a foot of snow or more on township roads, making them impassible. Clearing snow from long driveways and walkways is time-consuming and expensive.
- 4.2 Forested lots. Trees are a wonderful environmental amenity, but can also involve your home in a forest fire. Building in a forested draw is considered as dangerous as building in a flash flood area. Defensible perimeters are very helpful in protecting buildings from forest fire, and inversely can protect the forest from igniting if your house catches on fire. If you start a forest fire, you may be responsible for paying for the cost of extinguishing that fire. Proper stewardship of wooded land requires time, money, and physical effort,
- 4.3 Slopes. Steep slopes can slide in unusually wet weather. Large rocks can also roll down steep slopes and present a great danger to people and property. North-facing slopes or valleys see little direct sunlight in the winter, and there is a possibility that snow will accumulate and not melt until very late.

- 4.4 Soil. Clay soils found throughout much of northeastern Ohio become saturated with water, and thus muddy, throughout spring and early summer. You may require a sump pump to keep your basement dry. Dogs and cats will return from outside with very muddy paws. It is difficult to run a lawnmower through a saturated lawn, and you may damage your grass or create ruts in the process.
- 4.5 Topography. The topography of the land can tell you where the water will go in the case of heavy precipitation. When property owners fill in depressions or intermittent streambeds, they have found that the water that drained through those paths now drains through their house. Drainage is not considered during the lot split process, and construction on adjacent property may affect the drainage on your property.
- 4.6 Animals. Exurban living can provide you with some wonderful neighbors. Most, such as deer, are positive additions to the environment. However, even animals like deer can cross the road unexpectedly and cause traffic accidents, eat from your garden, or even crash through a sliding glass window. Raccoons and skunks are nimble, ingenious animals that will forage through trash, and possibly take up residence in your house or an outbuilding. Rural development encroaches on the traditional habitat of coyotes, snakes, bears, and other animals that can be dangerous, and you need to know how to deal with them. It is best to enjoy wildlife from a distance and know that if you do not handle your pets and trash properly, it could cause problems for you and the wildlife.

5 Agriculture

- 5.1 Protection of agricultural uses. Agriculture is still an important business in northeastern Ohio. Madison Township is in the heart of Northeast Ohio's nursery center, and vineyards are increasingly making their home south of Interstate 90. If you choose to live among agricultural uses, do not expect county or township government to intervene in the normal day-to-day operations of your agri-business neighbors. In Ohio townships, agricultural uses are permitted in all zoning districts, including residential areas. Ohio also has right-to-farm legislation that protects farmers and agricultural uses from nuisance and liability lawsuits. It enables them to continue producing food and fiber, and also preserves the rural character of the area.
- 5.2 Farm operations. Nurserymen and farmers often work around the clock, especially during planting and harvest time. It is possible that adjoining agriculture uses can disturb your peace and quiet.
- 5.3 Airborne irritants. Fertilizers and herbicides are often used in growing crops and farmland maintenance. You may be sensitive to these substances and many people experience severe allergic reactions. Land preparation and other operations can cause dust, especially during windy and dry weather.
- 5.4 Number two. Animals and their manure can cause objectionable odors. Freshly spread manure and other smells associated with agricultural operations may also offend sensitive noses.
- 5.5 Weeds. Before buying land you should know if it has noxious weeds that may be expensive to control and you may be required to control. Some plants are poisonous to horses and other livestock.
- 5.6 Dangerous animals. Bulls, stallions, rams, and other livestock can attack human beings. Children need to know that it is not safe to enter pens where animals are kept.
- 5.7 Horses. In Madison Township, equestrian activities are increasingly popular. Stables, breeders and other equestrian businesses are common, as is horse ownership among

residents. Horse manure odor, horse trailer traffic, and dust from riding areas may be objectionable.

In conclusion

Even though you pay property taxes, the amount of tax collected does not cover the cost of the services provided to rural residents. Without commercial and industrial uses to further subsidize services, and many miles of road used to service relatively few residents, there is not enough tax revenue to pay for the same level of services and amenities urban and suburban residents often take for granted.

This information is by no means exhaustive. There are other issues that you may encounter that we have overlooked and we encourage you to be vigilant in your duties to explore and examine those things that could cause your move to be less than you expect. We have offered these comments in the sincere hope that it can help you enjoy your decision to reside in Madison Township. It is not our intent to dissuade you, only inform you.

A.2 Transfer of development rights

TYPES OF TRANSFER OF DEVELOPMENT RIGHTS PROGRAMS

The most common transfer of development rights program allows the landowner to sell the development rights to a parcel located in a sending district to a developer, who then uses those development rights to increase the permitted development density on a different piece of property in a receiving district.

A second method allows a local government to establish a TDR bank to transfer development rights. In this method, developers, who wish to develop at a higher density than current zoning allows, would purchase development rights from the local government. The local government could then use these funds to purchase development rights of properties in areas that it wants to protect from urban development. The receiving area could not increase in density higher than a maximum set within the comprehensive land-use plan. The difference between the density with or without the TDR credits would be the permitted "bonus" that the developer could realize.

TDR COMPONENTS

There are four main elements that must exist in all successful programs:

- A designated preservation zone (the sending area).
- A designated growth area (the receiving area).
- A pool of development rights that are legally severable from the land.
- A procedure by which development rights are transferred from one property to another.

Without these components, landowners will have trouble finding a buyer for their development rights. The lack of a market for landowners who are mandated to sell their development rights to realize the economic development value of their property could be grounds for legal action. Under a voluntary TDR program, the lack of a receiving area would result in development occurring in the sending area just as before and with little land being protected.

INCENTIVES

Developers should have an incentive to purchase development rights. A TDR program must provide an incentive for the government to increase the building capacity within the receiving zones. This extra capacity is approved only after the developer transfers the development

rights they own, or purchases those rights from landowners in the sending areas, or from a TDR bank. Ohio State University Cooperative Extension recommends that receiving areas should provide for about 30 to 50 percent more building units that the actual number of transferable rights would allow. This creates a competitive market among landowners wishing to sell development rights, and among developers needing to purchase those rights.

EXAMPLE

As an example, a nurseryman owns an 80 acre parcel in a zoning district that permits one residence on every two acres. The nurseryman can subdivide their property into 40 building lots.

A developer owns a 20 acre parcel in a zoning district that permits two residences per acre. Normally, the developer can subdivide the property into 40 building lots. However, the parcel is in a TDR receiving zone, where the maximum density is six units per acre when development rights are transferred from another property. If the developer buys the 40 development "credits" from the nurseryman's 80 acre parcel, they can build 80 units on the property.

Many communities provide density bonuses as an additional incentive to transfer development rights. With a 50% bonus, the 40 development credits from the nurseryman's sending parcel can be used to build 60 additional units on the developer's receiving parcel, for a total of 100 units.

TDR IN MADISON VILLAGE AND MADISON TOWNSHIP – THE COUNTRYSIDE PROIECT STUDY

In April 2007, TDR consultant Rick Preutz, in conjunction with the Countryside Project at Cleveland State University, drafted a report that studied the feasibility of a cross-jurisdictional transfer of development rights program that would include Madison Village and Madison Township.

Rather than establish fixed sending and receiving areas, as implemented in most TDR programs, the Preutz report recommends designating all land zoned A-1, A-R and S-1 in Madison Township and A-1 in Madison Village as sending areas – zones encompassing over 13,000 acres of land or almost one third the land area of the township and village combined – and receiving areas as land up-zoned (permitting additional residential density) after adoption of a TDR ordinance, and in conformance with the underlying comprehensive plan.

This study assumes a growth rate of 100 additional residential units per year or an increment of roughly 5,000 new units in the Township and Village by the year 2057, with 2,500 units built by developers who choose not to exceed the maximum density allowed by current zoning. Based on the receiving area assumptions, another 1,000 dwelling units would be within baseline density and therefore not subject to TDR requirements. The remaining 1,500 dwelling units are assumed to be within TDR receiving site projects and above baseline.

The 1,500 units are bonus units and would require one TDR unit each. The 1,500 TDRs could preserve 5,000 acres (7.8 square miles or about 2000 hectares) of farmland, habitat, natural areas and open space; about 16% of the combined land area of the township and village. Preutz suggests that other preservation techniques could supplement TDR including agricultural easement purchase programs and parkland acquisitions. If these other techniques protected another 1,000 acres, the area preserved by the combined techniques would represent 20% of the land area of the township and village; a percentage often used as a target for open space preservation.

From a fiscal standpoint, it could be costly to Madison Village if the bulk of land used as a sending area is located in the township, and the bulk of receiving land is located in the village, unless there is a revenue-sharing agreement between the communities. Madison Village has only a very small commercial and industrial tax base. According to cost of service studies,

agricultural, commercial and industrial uses pay more taxes than the cost of services they receive. For residential uses, generally the cost of services received is greater than the taxes paid. A cross-jurisdictional TDR program intended to preserve agricultural land in Madison Township could result in shifting a disproportionate amount of residential development to Madison Village. Without a sizeable commercial or industrial tax base to subsidize services required by residential development, the village could face an unfair financial burden. Even without TDR, residential development is continuing in the village without a corresponding increase in the commercial and tax base.

This plan recommends further study of the fiscal impact of a transfer of development rights program. If issues about the cost of community services resulting from a disproportionate level of residential development can be resolved, this plan recommends implementation of a TDR program per the Preutz/Countryside Project study. Otherwise, a TDR program should be implemented within the township, outside of Madison Village.

Recommended TDR sending areas should include parcels with an agricultural and green area zoning designation, and TDR receiving areas should include parcels with a residential zoning designation – particularly the North Madison area. A 25% density bonus is also recommended, to provide an incentive for developers and landowners to use transfer of development rights. An additional bonus is recommended when road frontage is preserved on the sending parcel. Sending parcels should be at least 20 acres.